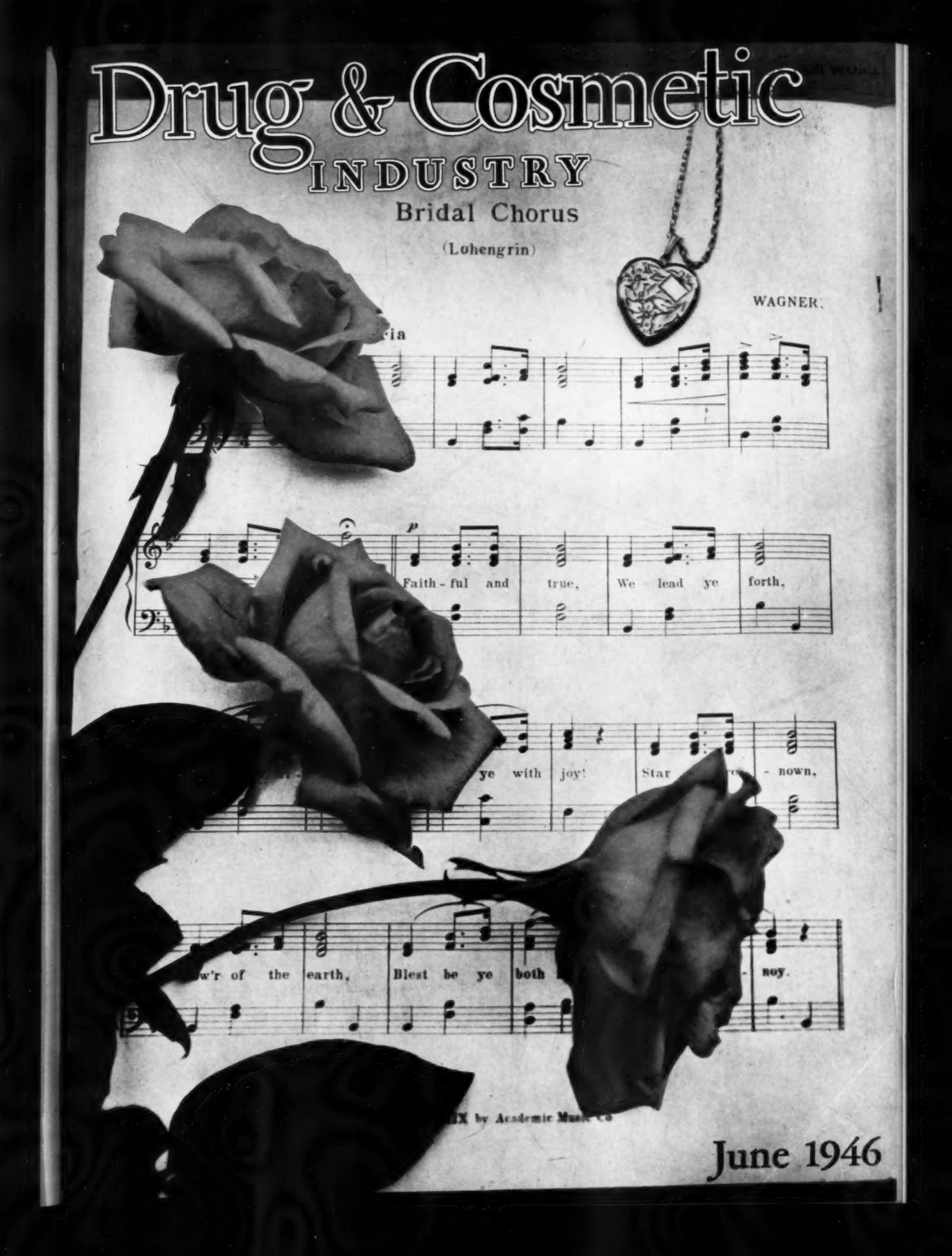
Drug & Cosmetic INDUSTRY

Bridal Chorus
(Lohengrin)
WAGNER.
Faith - ful and true, We lead ye forth,
ye with joy! Star - nown,
w'r of the earth, Blest be ye both noy.

June 1946

What's in the new Wonder Drugs

BESIDES CURATIVE POWER

SNOW TOP Precipitated Calcium Carbonate U. S. P. is used in the manufacture of and as a vehicle for penicillin, streptomycin and similar antibiotics because of its unvarying high physical properties.

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SPECIFICATION RANGES FOR SNOW TOP

Grades According to Density	Rattle cc.	Flow* cc.	2-Hour cc.	Final** cc.	g/cc.	Drop Density*** lbs./ft.
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Light	20-30	27-40	45-70	40-55	.550-0.475	34.3-29.6
Medium	17-23	19-27	25-45	24-40	.675-0.550	42.1-34.3
Heavy	15-17	15-19	20-25	19-24	.800-0.675	49.9-42.1
Extra Heavy	11-15	11-15	15-20	15-19	.950-0.800	59.3-49.6

**Measure of the absorption ratio* ****Measure of wet bulk* ******Measure of dry bulk packing density*

Snow Top Precipitated Calcium Carbonate ★ ***Caltec Precipitated Calcium Carbonate (technical)*** ★ ***Tallex Abietic Acid***
★ ***Nuchar Activated Carbons*** ★ ***Liquid Caustic Soda*** ★ ***Chlorine*** ★ ***Indulin (Lignin)*** ★ ***Liqro Crude Tall Oil*** ★
Indusoil Distilled Tall Oil ★ ***Tallene Tall Oil Pitch*** ★ ***Sulphate Wood Turpentine*** ★ ***Cellulose Products***

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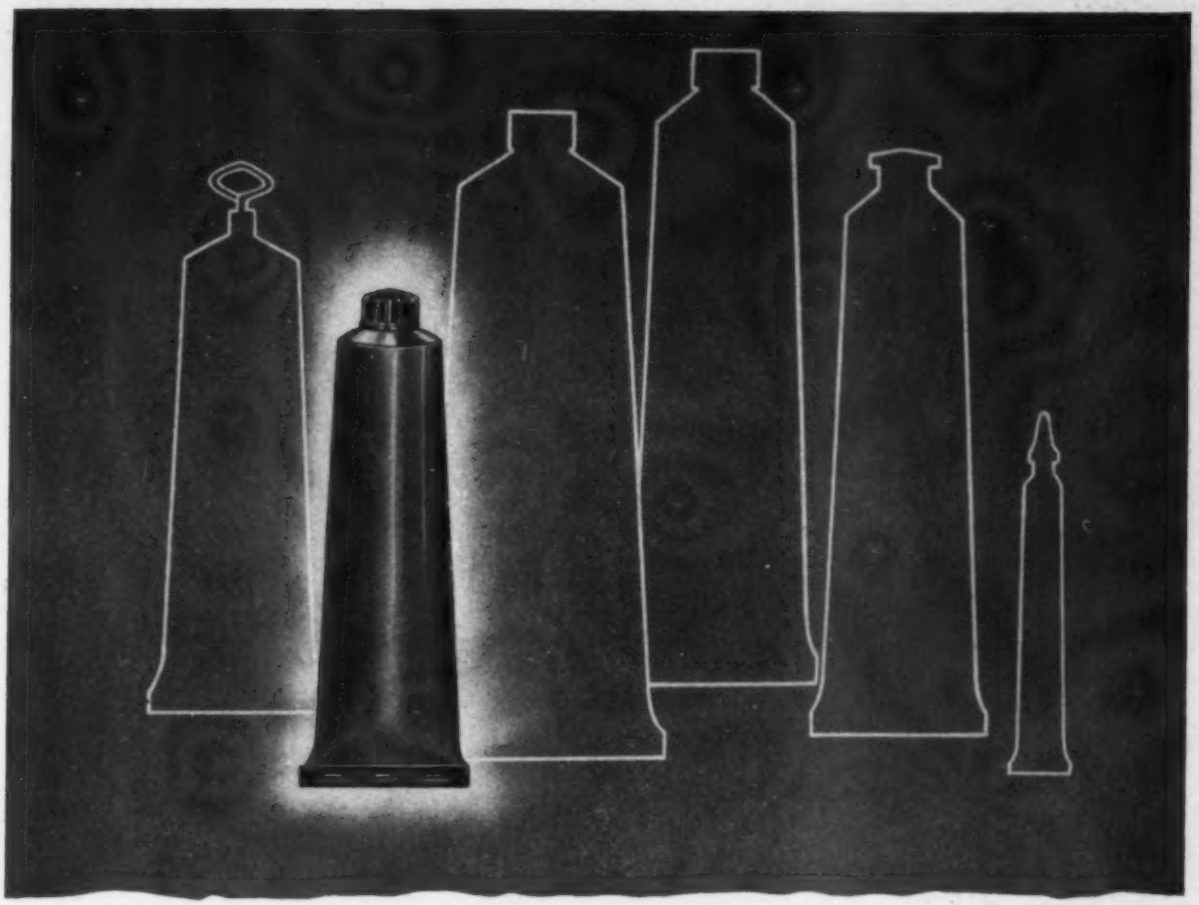

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Drug & Cosmetic INDUSTRY

JUNE 1946

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HIGHLIGHTS FROM THE JUNE ISSUE

American Druggist

THE BUSINESS MAGAZINE WITH PUNCH AND POWER

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A Fact-packed Research Report

Continuing the series of market reports which began in February with a survey of dental adhesives, and the report on insecticides in the May issue, the June American Druggist examines the deodorant market. Written by Virginia Meredith, the magazine market research director, these articles are musts on the reading list of anyone interested in the drug industry.

Another Independent Research Activity—on Hormones!

Last September, American Druggist created wide interest in pharmaceutical circles with the publication of "A Guide To The Endocrines". It was the first time all the endocrine products had been grouped in an easy-to-read, quickly understood chart. Acceptance was so great that this issue contains a revised, up-to-the-minute guide. Reprints will be available.

Encouraging More Volume in Drug Stores

People like to shop in fresh clean stores. That's why each issue of American Druggist contains a "This-is-how-to-do-it" remodeling article. This month the store is Dean's, in Niles, Michigan. Business went up 47.09 percent after the remodeling. Other druggists will see why when they read this four page text and picture story.

Another in the Growing Line of Services for the Druggist

Following the series of posters offered the retail druggist in previous issues, the June American Druggist contains a new offer to help build prescription prestige. An individually imprinted prescription envelope is offered at a nominal cost to all druggists. It is another example of the constant editorial desire to improve the retailer's public relations, and to build his business effectively and soundly. The story, and the illustrated envelope, appear on page 80.

AMERICAN DRUGGIST, 572 MADISON AVENUE, NEW YORK 22, N. Y.

(*Advertisement*)

INSIDE NEWS

JUNE PREPARED BY NATIONAL CAN CORPORATION, NEW YORK, N. Y. 1946

"Undercooling" Protects Canned Foods from Frost Damage

Sometimes it's called undercooling. Sometimes it's called supercooling. Whichever this phenomenon is termed, it is now established as a practical safeguard against immediate damage to canned fruits and vegetables when exposed for short periods to temperatures well below their freezing points.

Findings, based on tests made during the war and recently released in a U. S. Department of Agriculture report have a direct peacetime application, and will enable canners, wholesalers, cold storage operators and common carriers to handle canned foods in freezing weather with greater assurance, since they can predict how soon freezing is likely to occur. The research, however, showed that the true freezing points must be taken into consideration whenever storage is prolonged.

Several Types of Food Tested

Among the commodities tested were applesauce, asparagus, and various kinds of canned beans as well as many other vegetables and fruits. All of the commodities displayed the phenomenon of undercooling during the tests, which duplicated commercial practice as closely as possible. Once the undercooling took place, it was relatively easy to determine true freezing points.

Here is what happens when fruit, vegetable or animal tissues, or products made from them, are held at temperatures below their freezing points. Cooling tends to take place gradually rather than suddenly at first. Prior to actual freezing, the solutions or tissues become undercooled, or supercooled. After this undercooling occurs, it is often terminated by such disturbances as a jar or a jolt, which results in crystallization or ice formation.

As temperatures continue to decrease, ice crystals will eventually appear whether or not the substance is shaken. When ice crystals do appear, the trend of the temperature of the solution or tissue will reverse itself and rise suddenly, and may remain fairly constant for hours. It will finally resume its fall when the surroundings are cold enough. The material will freeze solid if the temperature drops low enough.

In the recent tests, the highest temperature reached after the end of the undercooling—the peak just prior to the resumption of the temperature decrease—was regarded as the freezing point of the commodity.

When ice crystals did not form, undercooling did not harm processed plant or animal material of the types tested. An appreciable interval was shown between the time the canned goods reached the freezing point, and the time of actual freezing or ice formation. When the cans were motionless, undercooling protected the material for a longer period than when the cans were jolted.

Actual Temperatures Determined

The cooling data were obtained on commercial cans fitted with thermocouples, which gave the actual freezing temperatures of the contents. Air temperature also was recorded by a thermocouple, checked against a mercury thermometer. The freezing was done in a brine-refrigerated room held at the following temperature ranges: 15 to 18 deg. F., 9 to 12 deg. F., 7 to 10 deg. F., and −3 to −6.6 deg. F. Some of the cans were kept motionless. Others were thoroughly jounced about, accurately simulating the movement of a railroad car. Readings were taken every 15 minutes. Samples were tested twice, three times, or four times.

At 15 to 18 deg. F., the still cans, on the average, undercooled for more than two hours, and the jolted cans for an hour. This provided a considerable period of protection against frost damage. Even in the 7 to 10 deg. F. range, it was found that there may be an hour's leeway between freezing temperature and actual solid freezing of the can contents. Under certain conditions, the can contents may undercool nearly 10 deg. without harm from frost formation.

This information is based on an article which appeared in *Food Industries*, April, 1946, reporting on work done by D. H. Rose, division of Fruit and Vegetable Crops and Diseases, and H. D. Johnson, Office of Distribution, War Food Administration.

National Can Corporation, makers of tin containers for all industries for many years, is in a position to inform manufacturers who use cans on recent developments in their fields . . . such developments as undercooling. National Can Corporation is also equipped to advise on—and handle—your packaging procedures. Call on your local National Can office today or write direct to the executive offices: National Can Corporation, 110 East 42nd Street, New York 17, N. Y. 1288

Fat Production by Yeast

Yeast, exploited as a builder of protein, is now receiving further attention as a potential commercial producer of fat and related lipoidal material. Synthesis of fat by yeast occurs under conditions of normal growth, with the fat appearing as globules within the cells. During World War I, it was found that fat production could be increased under favorable conditions to 44 percent of the weight of the yeast cells. Under regular manufacturing plant conditions, it was possible to achieve 20 percent of lipoidal material. The new investigations, important by reason of the fat and oil shortage, were done with a freshly isolated strain of yeast from soil which was found capable of developing more than half its weight of lipoid. Conversion of sugar to fat is described as efficient, and nitrogen requirements for growth are not great. The fat is recovered by acid hydrolysis rather than by extraction with solvents. Inexpensive nutrient materials proposed include milk waste, molasses, waste sulphite liquor, cellulose waste and hydrolized wood. 1289

Pest Control Data Available

Abstracts of data collected during the war years on the control of rodents and insects are now being disseminated. The research findings of wartime workers in these fields could not be released previously because of security considerations, but abstracts of their work are now being made available. 1290

Fumigating Grain

A newly patented method of fumigating insect infested grain involves the introduction of a volatile fumigant in the top of the bin in which the grain is stored. The toxic agent employed is a 2.5 to 20 percent solution of ethylene bromide in carbon tetrachloride. It is sprinkled or sprayed on the surface of the grain. 1291

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NATIONAL CAN

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Treats Scabies

It is reported that benzyl benzoate emulsion has proved superior to sulfur ointment for the treatment of scabies. It does not soil clothing or have a disagreeable odor, and two applications are sufficient to cure over 90% of the cases treated. The treatment consists of applying a 25% water emulsion of the concentrate with a paint brush, spray gun or cotton swab to the entire skin of the patient from the neck down. 1292

Dry Milk for Ice Cream

Dry milk of high viscosity, especially adapted for making ice cream, is described in a recent patent. It is claimed that when used to make ice cream this special powder improves the whipping quality, emulsifies better, permitting the egg yolk content to be decreased and allows not less than 25% reduction in stabilizer. 1293

Antibiotics

Antibiotics, similar to penicillin, are reported to be found in green plants such as the single cell chlorella and seem to belong to the well known group of organic compounds chemically classified as unsaturated fatty acids, commonly used in making soap. 1294

Canned Sandwiches

Success in canning bread paved the way for sandwiches in cans. Developed during the war, the canned sandwich is expected to be popular with hunters, picnickers, fishermen, and housewives packing lunch boxes in a hurry. Sharp cheese was used in the first sandwiches. Sandwiches with other fillings are contemplated. 1295

Pie Apples Firmed with Calcium

Pie baking qualities of Mackintosh apples, one of the important commercial varieties, are improved by the use of calcium chloride as a firming agent at the time the apples are canned. The calcium, used in amounts of .03 to 1.5 percent, prevents the apples from becoming excessively soft or mushy. It reacts with pectic acid to form calcium pectate, which firms the tissue. 1296

Technical Topics

SHARK REPELLENT—Formic acid, cause of disagreeable odor in ants, is said to be an effective shark repellent. Mixed with ground asbestos it may be useful in repelling sharks from ships or aviators downed at sea. 1297

IMPROVED AMYLASES—It is reported that less expensive amylases can stand higher temperatures and produce higher sugar yields than the barley amylase heretofore used. 1298

LOWERS ALCOHOL COST—It has been announced that several new types of bacteria have been isolated which will lower the cost of commercial alcohol. 1299

GELATIN EXTRACTION—Lime soaking of gelatin stocks is reported to reduce heating time for extraction. It is claimed that the new method reduces the heating time to obtain 50 to 60 percent of the stock in the form of gelatin from 15 to 3 hours. 1300

COCOA EXTRACTION—A patent has been assigned for a series-extraction treatment for obtaining an increased yield of cocoa-butter from non-settling soluble, practically fat-free cocoa extract. 1301

OPENING OYSTERS FOR COMMERCIAL USE—Opening of oysters on a commercial scale is said to be expedited by mechanical and chemical shock. After 30 seconds in a tumbling drum, the oysters can be opened readily in chlorinated, carbonated water. The physical treatment and the soda water relax the shell muscles. 1302

BENADRYL FOR ALLERGIES—It is said that benadryl, a pure crystalline compound which may be taken orally, is proving effective in the treatment of allergies. 1303

HUMIDITY INDICATORS—It is announced that a series of silica gels, which by changes of color accurately indicate the change in relative humidity, have been developed. 1304

IMPROVES VARNISHES—The use of cashew nut shell liquid in place of castor oil in the production of shellac rosin esters compatible with drying oils is said to give a smooth, controllable reaction and to give varnishes made from the products excellent weathering properties. 1305

CIGAR ODOR INGREDIENT—Myosinine, an alkaloid said to be responsible for the pleasant odor of cigar smoke, has been patented as an ingredient in minute quantities in tobacco. Tests show a great preference for tobacco containing this alkaloid. 1306

NEW ADHESIVE COMPOUND—A new patent describes the frequent use of soap as a standard raw material for adhesive manufacture, especially those soaps containing rubber. 1307

IMPROVED METHODS FOR EXTRACTING COTTONSEED OIL—New and improved methods that extract more oil from cottonseed at less cost were revealed recently. These methods should enable commercial plants to reduce residual oil in cottonseed meal from between 5.5% and 6.25% to between 1% and 1.5%. 1308

CRYSTALLINE NITROGUANIDINE—A patent has been awarded for a method of producing nitroguanidine and similar substances in extremely minute crystalline form. This patent covers a method for making crystals less than 5 microns thick and less than 100 microns long by the addition of ethylol dodecyl biguanide acetate to a nitroguanidine solution. 1309

THREE PLANTS TO PRODUCE ANHYDROUS AMMONIA—Three plants that produced anhydrous ammonia for the armed forces during the war have been turned to civilian production of the critical material, needed for fertilizer manufacture, it is announced. 1310

Every effort will be made to furnish additional information on these articles. Where such information is not obtainable, we will refer inquiries to the original source of the article. Write to National Can Corporation, 110 East 42nd Street, New York 17, N. Y. Please mention the number at end of article — also name of the magazine you saw it in.

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Aluminum Chloride, Anhydrous $AlCl_3$; 133.3	Aluminum Chloride.....98.5% min. Iron.....05% max. Non sublimables in air at 950°C.....1.5% max.	Catalyst for Friedel-Crafts synthesis, polymerization, isomerization, halogenation. Derivatives essential in producing dyes, pharmaceuticals, etc.
Antimony Trichloride, Anhydrous $SbCl_3$; 228.1	Antimony Trichloride.....99% min. Iron & Arsenic.....1% max. Lead.....0%	Catalyst in organic synthesis. In the manufacture of dyes and pharmaceuticals; preparation of antimony salts.
Benzoate of Soda—USP and Tech. C_6H_5COONa; 144.0	Benzoate of Soda..99% min. U.S.P. grade meets requirements of U. S. Pharmacopoeia XII.	Antiseptic and preservative in pharmaceutical and medicinal preparations, in tooth pastes and powders.
Benzoic Acid—USP and Tech. C_6H_5COOH; 122.1	Benzoic Acid....99.5% min. Water.....0.5% max. U.S.P. grade meets requirements of U. S. Pharmacopoeia XII.	Manufacture perfumes and pharmaceuticals; dyestuff intermediate; preservative for creams, lotions; antiseptic dentifrices and pharmaceuticals.
Benzyl Alcohol, Tech. (Phenyl Carbinol) $C_6H_5CH_2OH$; 108.1	Boiling Range.....204° to 208°C Freezing Point.....–15.3°C	Perfume fixative and in manufacture of perfumes; organic synthesis; pharmaceuticals; solvent for resins, waxes, gums.
Benzoyl Chloride C_6H_5COCl; 140.5	Freezing Point ..–0.9°C min.	Manufacture of synthetic organic chemicals through Friedel-Crafts reactions to produce perfumes, dyes, pharmaceuticals. Manufacture benzyl benzoate and other esters.
Phosgene (Carbonyl Chloride) $COCl_2$; 98.9)	Colorless gas at ordinary temperatures. Does not discolor a 0.2% solution of KI when vigorously bubbled through solution for one-half hour. (Test for free chlorine).	Manufacture alkyl and aryl chlorcarbonates and dicarbonates; Michler's Ketone; dye intermediates; pharmaceuticals; perfumes.
Propionyl Chloride C_2H_5COCl; 92.5	Boiling Range.....73° to 82°C Specific Gravity 15.5°/15.5°C.....1.061	Intermediate in the production of propionamide and esters of propionic acid. To introduce the propionyl group into organic compounds.
Thionyl Chloride $SOCl_2$; 119.0	Technical Thionyl Chloride 93% min. Refined Thionyl Chloride 98% min.	In organic synthesis to replace various groups with chlorine; to introduce sulfur alone or in combination with oxygen.

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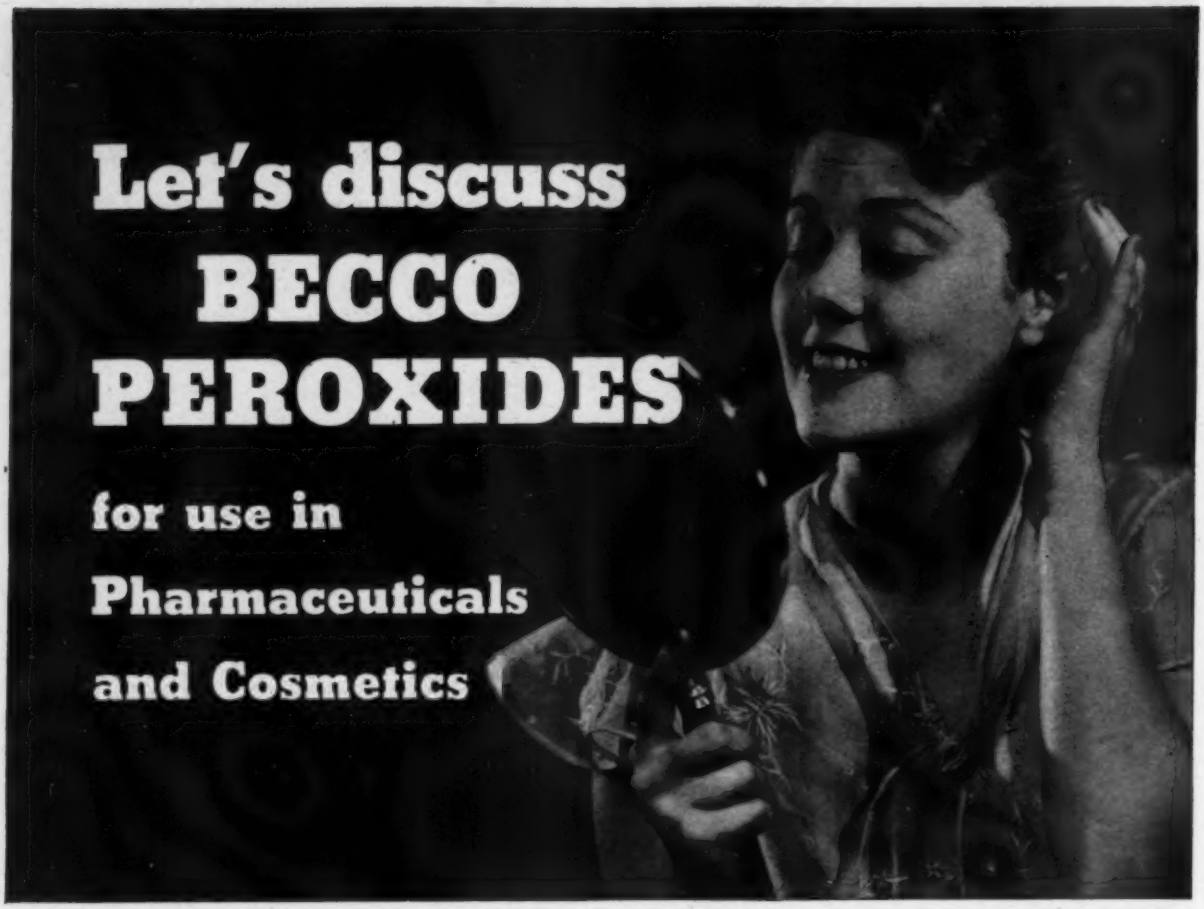
Sodium Sulfhydrate Sodium Sulfide Paradichlorbenzene



Hydrogen Peroxide is the most universal bleaching and oxidizing agent known. In the manufacture of many pharmaceuticals and cosmetics its purity and stability are well known. The wide variety of applications in this industry for "peroxygen" chemicals cannot be itemized here, but the following few sample descriptions are typical of the many uses of a wide variety of Becco "peroxygen" chemicals:

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Becco Urea Peroxide—source of water-free hydrogen peroxide. In pharmaceutical products and cosmetic preparations.

Becco Metallic Peroxides: Magnesium Peroxide 50%—Calcium Peroxide 60%—Zinc Peroxide 55%. All three are used in pharmaceutical products; in cosmetic preparations; as chemotherapeutic agents; for food processing; for oxidation and other reactions at high temperatures.

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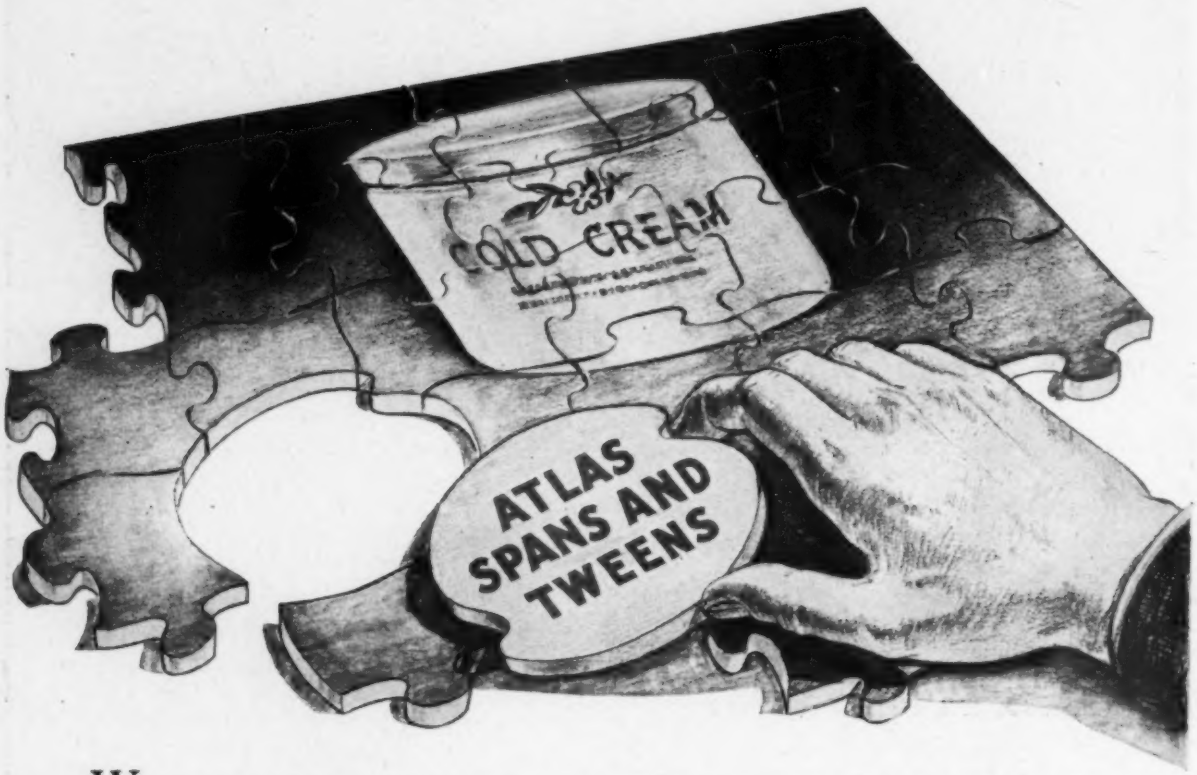

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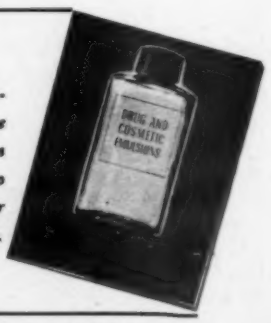

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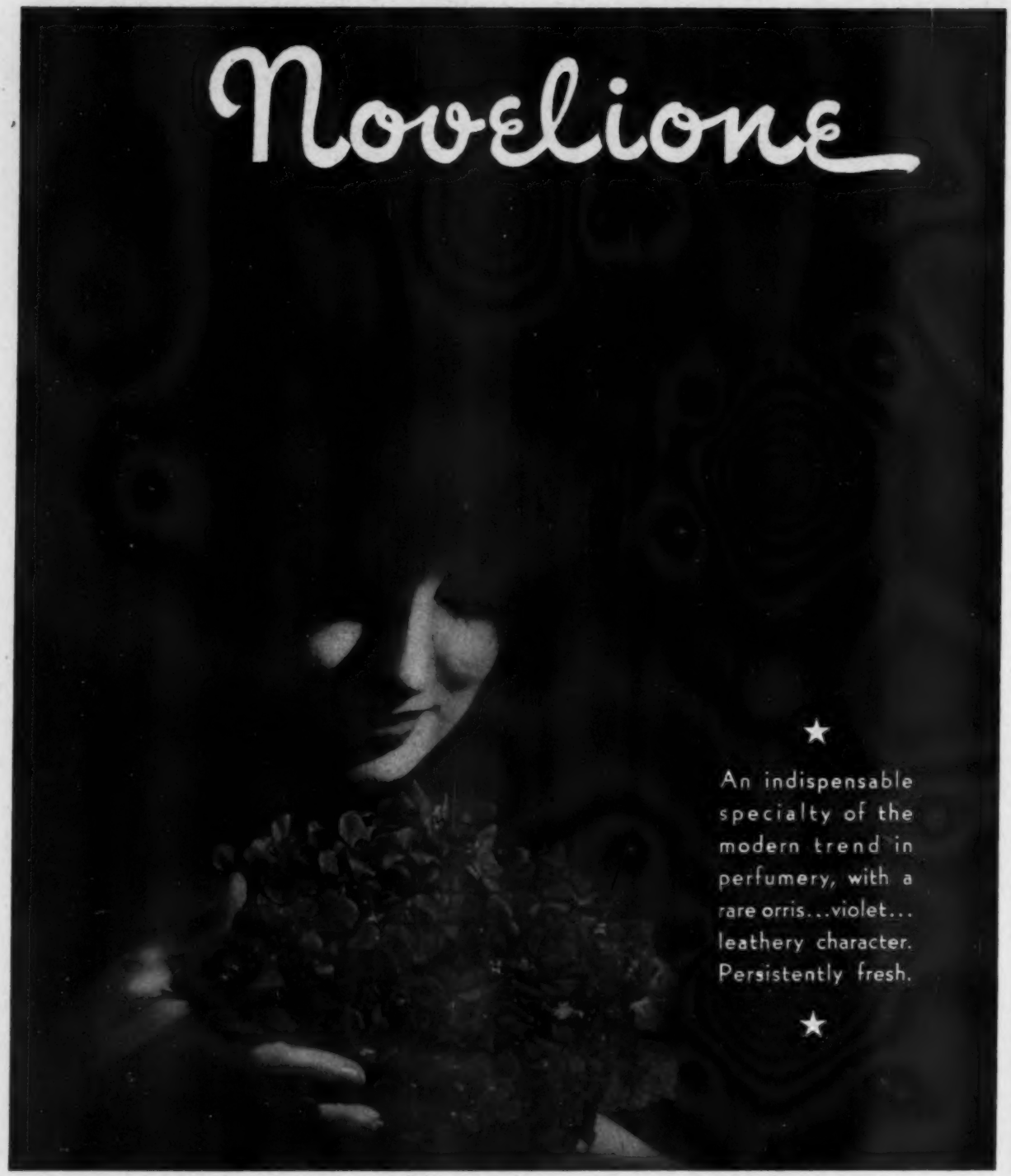
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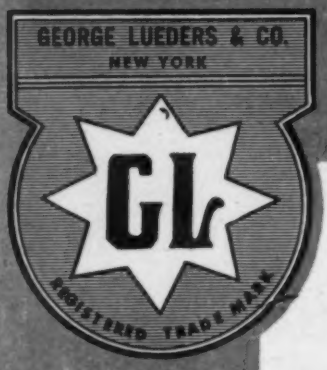

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Lelong Loses to Lander

IN THE case of Lucien Lelong vs. Lander Co., a decision has been handed down in favor of the defendant and the case dismissed by Judge Bondy, of the U. S. District Court of Southern District of New York. Lelong sued Lander charging that the cologne bottles used by Lander with globular bases, long, narrow cylindrical necks, and labels encircling the entire long necks, constituted unfair competition because Lelong marketed its colognes in the same type of bottles. While Lelong had design patents on two bottles of this type, one of these patents expired before, and the other about four months after the suit was started. Therefore the court declared: "The plaintiff having claimed and enjoyed the monopoly the design patent granted, the shape of the bottle has now been dedicated to the public." The court considered other points of possible similarity, as well as the fact that Lelong colognes "are sold in high priced department and drug stores," while Lander colognes "are sold in ten cent stores and other low price stores." Also the Judge stated: "Although not decisive, it may be noted that it appears that the plaintiff was unable to find a single instance in which a buyer has been misled."

U.S.P. XIII in November

U.S.P. XIII is expected to make its appearance next November and become official on April 1, 1947. In this latest revision there has been a sharp trend toward medicines having specific physiologic action, as illustrated by the addition of such cardioactive drugs as digitoxin, digoxin, and lanatoside C. Also ergot is now restricted to the alkaloids ergonovine and ergotamine and their preparations which give prompt and definite results. The important sulfonamides, including sulfamerazine, have been included, as well as penicillin sodium and penicillin calcium. A new washable type ointment base, hydrophilic ointment, is being made official. This combines satisfactorily with most of the commonly used drugs employed in dermatology and provides an effective vehicle for treatment in which fatty vehicles are contra-indicated. Another new ointment vehicle, hydrophilic petrolatum readily absorbs water, forming a water-in-oil type of emulsion, lending itself to the incorporation of aqueous solutions.

Another striking change in this new revision is that basic drugs and their preparations now follow each other in alphabetical order by English titles, the Latin titles now being in secondary position and no longer establishing the alphabetical order of the book. Therefore, digitalis is followed by all of its preparations and also by digitoxin and its preparations and digoxin and its preparations; belladonna leaf by the extract, fluidextract, and tincture; diethylstilbestrol by its capsules, injection and tablets; and so on through the list.

A greater number of U. S. P. assays and tests are requiring reference standards and the U. S. P. is supplying these to those who wish to check them against their production lines, and to enforcement officials. Reference standards for new products which are being investigated are also being made available in more instances. Formerly reference standards for unofficial products were limited to trypsin, calcium pantothenate, and pyridoxine hydrochloride, but reference standards for the amino acids are to be available shortly in response to urgent requests from investigators in this rapidly developing field. The list of reference standards now available is: vitamins A, D, and D for poultry; ascorbic acid; calcium pentothenate; cholic acid; diethylstilbestrol; digitalis; epinephrine; ergotoxine ethanesulfonate; estrone; melting points (caffeine, sulfapyridine, sulfanilamide, acetophenetidin, acetanalid, vanillin); ouabain; posterior pituitary; pyridoxine hydrochloride; riboflavin, sulfanilamide; thiamine hydrochloride; trypsin.

In addition to these, the following are being prepared: choline chloride; digitoxin; digoxin; estradiol; estradiol benzoate; heparin; lanatoside C; menthyltestosterone; nicotinamide; progesterone; testosterone propionate.

Rescue Helicopter for Drug Company

UNITED-REXALL Drug President Justin W. Dart is giving his company many modern touches, the latest of which is purchase and maintenance of a helicopter completely stocked with emergency drug supplies, anti-toxins, rescue and aid equipment, including one of the newly developed plastic lungs. The first Rexall flying "mercy ship" will be based on the roof of the company's new headquarters building in Los Angeles ready for immediate take-off in cases of disaster.

Now It's "Doctor" Chilson

WE COULD hardly believe it, but it's a fact, Frank Chilson has been awarded an honorary degree of Doctor of Science by Duquesne University because "his work in applying the engineering sciences to the production and packaging of pharmaceutical products has established pharmaceutical engineering as a distinctive field of the engineering sciences."

It will be a long time before we get around to calling him "doctor," or even "doc." And with the clothing shortage, we wonder how he is going to cover his increased chest expansion, not to speak of the larger sized hats that he will need.

However, all who have worked with Frank and the large number of people who read his "Production Forum" in this magazine are in a good position to appreciate the real contribution that he is making to this industry. More than any other one man, he probably was responsible to a far greater degree for the splendid production record of this industry during the war years.

Forty Years of Food and Drug Law

ON JUNE 30, Food and Drug law in this country will be forty years old. To celebrate this anniversary, a meeting is being held in the meeting hall of the Association of the Bar of the City of New York, under the auspices of the Section on Food, Drug and Cosmetic Law of the New York State Bar Association, at which many important speakers will appear. These speakers will include: Watson B. Miller, Federal Security Administrator; Charles Wesley Dunn, Chairman of the Section; Mrs. Harvey W. Wiley, Chairman, Department of Legislation, General Federation of Women's Clubs; Fred B. Linton, formerly Business Manager, Food and Drug Administration; Dr. Paul B. Dunbar, Commissioner of Foods and Drugs; W. R. M. Wharton, Chief, Eastern District, Food and Drug Administration; J. Howard McGrath, Solicitor General of the United States; Dr. Thomas Parran, Surgeon General, U. S. Public Health Service; Clarence Francis, Chairman of Board, General Foods Corporation; S. Dewitt Clough, Chairman of Board, Abbott Laboratories; James Hill Jr., president, Sterling Drug, Inc.; Dr. H. Gregory, Thomas, vice-president, Bourjois, Inc.; Mrs. Harold A. Stone, first vice-president, National League of Women Voters; Dr. Frank G. Boudreau, Chairman, Food and Nutrition Board, National Research Council; John C. Knox, Senior District Judge, U. S. District Court for the Southern District of New York.

Salesmen's Union Activities

INTERESTING is the "Bulletin of the Drug Trade Salesmen's Union," the organization affiliated with the CIO which has been battling for some time now to unionize salesmen in this industry. The May issue of the Bulletin states that a new contract has been reached for the American Druggists Syndicate with the new owners, the Greater New York Industries. Some of the new features in the contract are listed as: Expenses for country salesmen, $125 per month; for city salesmen, $100 per month; for city and country salesmen, $75 per month; all plus $7 per day for every day spent on the road; plus two weeks vacation with pay, each man to receive 4 per cent of previous year's earnings during vacation period and none of the above amounts are to be charged against commissions earned. The Bulletin says: "Lots More to Come!"

The Bulletin also tells of a contract signed with Purepac Corporation earlier this year after three years of negotiations, features of which are given as follows: Retroactive pay, some of the salesmen receiving as much as $1,000 back pay; closed shop for metropolitan salesmen; increased commission rates; territorial security; and a precedent set by the union—two weeks' vacation with pay amounting to 4 per cent of previous year's earnings and not to be charged against drawing account.

News of companies whose salesmen are affiliated with the union appear throughout the Bulletin. In a column addressed to salesmen about what the union is trying to accomplish, the names of those affiliated are given in the following paragraph:

"Fellows, come up and meet salesmen you all know. Men from Winthrop, ADS, McKesson, Spielman, Norwich, Fred. Stearns, and many others too numerous to mention."

Companies that being worked on are partly revealed in the following item:

"Welcome to new groups into the DTSU who have taken the bull by the horns and are readying themselves to negotiate a contract that will benefit both their representatives and the companies they work with, the IVC men, and Abbott Laboratories, two groups whose companies are international in their activities. The membership is solidly behind you in your drive for better working conditions."

Another paragraph reads: "Schieffelin & Co.'s Salesmen's Petition at NLRB will be heard on May 15th. The men are united 100 per cent and should anticipate an early settlement of their differences with the Schieffelin Co."

Bulls'-Eyes or Pure Research?

THE time and money spent on research has never been generally thought to be too great in many particular instances, although there are a great many executives who fail to see the continuance of large research staffs when very little is forthcoming over a long period of time. Many of them want definite results for a definite period of time or for a definite cost. Dr. Roger I. Lee, of Boston, recently explored this subject to a considerable extent in an address at the graduation exercises of Harvard Medical School. The following interesting statements are taken from this address:

"A late friend of mine was fond of remarking on bulls'-eyes in research. He felt that he himself had never hit a bull's-eye in research and was prone to regard bulls'-eyes as a matter of luck. But executive committees, university trustees, and similar bodies certainly seem to like results and bulls-eyes. Now that this war is over we should have a great deal of factual data on the whole subject of directed research, frontal attacks, results, and bulls'-eyes. This government in the war went into research in a tremendous way. Men have been given

almost unlimited funds, abundant equipment and adequate assistance in order to solve at once certain definite urgent problems. Some, but by no means all, of these problems have been solved. Regimented scientific brains and 3 billion dollars solved atomic energy. The proportion and nature of these problems which have been solved will help immeasurably in the future organization of research. But it is helpful to those who recall that Pas'eur did some of his best work in sheds and henhouses and that insulin was developed by a relatively small cooperative group at the University of Toronto.

"Anyway, have we not been paying too much attention to results, to bulls'-eyes? The so-called pure scientist rises to remark with many examples to prove his case, that the quiet scientist who advances the frontiers of science is after all the man who makes possible the applications which loom so large in the public consciousness. Universities are hotbeds for the debate as to the merits of pure and applied science. In industry too, one discovers that there are laboratories sometimes whimsically called "Purity Halls," where research of a fundamental nature goes on without pressure to produce tangible results with immediate application to the industry.

"The war was in part responsible for the desire of some scientists to leave their Purity Halls for the Halls of applied science. The most miserable men in the war were the Professors of Classics and the Professors of Ecclesiastical History. The Professor of Economics had a job in Washington. The Professor of History was in the Office of Facts and Figures. The Professor of Philosophy was concerned with ethics and ideals. The Professor of Psychology delved into morale. But there were some professors who could not find a place in the war effort and were miserable along with the stockbroker, gasoline station attendants, automobile salesmen and tea tasters."

Arden Demonstrator Order Upheld

ON JUNE 5, the Circuit Court of Appeals for the Second Circuit upheld the decision of the Federal Trade Commission in which the Commission decided that Elizabeth Arden had violated subsection 2(e) of the Robinson-Patman Act in not furnishing demonstrators to all of her retail distributors on "proportionately equal terms." The decision points out that Arden sells to only 3,000 retailers, approximately 725 are department stores, 25 are women's specialty shops, and 2,250 are drug stores. Arden paid all or part of the compensation of about 287 demonstrators in the retail establishments of about 265 (less than 10 per cent) of their approximately 3,000 customers who purchased less than 40 per cent of Arden's total sales, at a cost of $250,000 a year. Arden did not furnish any demonstrator service to the remaining 90 per cent of their customers who purchased 60 per cent of their total sales.

The decision then states:

"Petitioners' terms were designed to be ineffectual to enable this large segment of their customers to receive the minimum quantity of demonstrator service, for petitioners were 'well aware' when they established them that all but a few 'could not qualify,' and they 'tailored' them to accomplish the exclusion. The terms which precluded 90 per cent of petitioners' customers from being accorded any demonstration service were the ability to 'cooperate' satisfactorily with petitioners by reciprocally furnishing to them the use of some indeterminate aggregate of services and facilities to promote the resale of Arden cosmetics, such as carrying a representative stock, making available adequate counter displays, and mentioning Arden cosmetics in fashion shows."

The value of demonstrators to retailers is viewed in the decision as follows:

"Customers located in the same city are in competition with each other in the resale of Arden cosmetics to consumers, and in many cities there are customers who are furnished demonstrator service and customers who are not. Where demonstrators are furnished, sales of Arden cosmetics to consumers by the favored customers are increased, *sometimes as much as tripled*, and at a lessened or no cost for sales clerks' salaries." (Italics ours).

Penicillin Outlook Improves

PENICILLIN production figures have continued to soar and now stand at a point at which domestic distribution control by the CPA are being lifted. Export control will be continued for some time to prevent too great a drain on the domestic market and also to prevent one foreign country from obtaining more than its internal needs while the legitimate demands of other countries remain unfilled. It is believed that, in some instances, supplies received from this country by at least one other country were reexported to black market operators in other parts of the world. Export demands remain extremely heavy. Requirements in Latin America are being met, but, in general, European nations and some Far Eastern countries are not getting sufficient quantities of the drug to meet their needs. Export quotas have been gradually increased, but it will be some time before world supplies will be equal to all requirements.

Production has risen to 2,000 billion units a month—a figure four times that of last year at the same time, and a substantial gain over the March production of 1,838 billion units.

Fair Trade and Competition

IN THE matter of drug stores against grocery stores and supermarkets in the distribution of drugs and cosmetics, it appears that when the grocers display Fair Trade priced items, the druggists in the vicinity refuse to display the same items with price tags showing that the prices are the same and that nothing is saved by buying through the grocer or supermarket. The druggists probably feel that this works both ways, and that when he displays his price in the drug store, the customer might remember the price when she is in the grocery and buy it there because of convenience. However, it would seem that the main thing for the druggist to do is to impress the customer with the fact that she is not saving anything by buying through the grocer. It is natural a supposition on the part of customers that they will save money on these items when they are bought through the grocer, and it is up to the retail druggist to prove to her that this is not so. By not displaying the prices of these Fair Trade items, the druggists are really playing directly into the hands of the grocers because they allow the customers to believe that the grocers' prices are cheaper.

Aromatic Chemical Research

WE READ with interest in the handsome book produced in Switzerland to celebrate the 50th anniversary of Firmenich & Co., of present research projects of their laboratories. This company, which is responsible for a great many of the widely used synthetic aromatic chemicals, gives the following information through Max Stoll, D.Sc., director of the Research Laboratories of the company.

"The scientific labors at present in progress in our research department may of course not be divulged before they have borne their full fruit in the service of our manufacturers. I may, however, give the following brief indications concerning the problems under consideration on the majority of which nothing has as yet been published. I may mention that the results obtained to date are full of promise for the firm's future progress.

"First there is the problem of oakmoss concrete. Preliminary analyses of mosses from various sources long ago indicated that there were great variations in its composition according to the place or season of picking.

"Then there is work on lavender oil, some of the results of which have already been published. This led to the synthesis of a new terpene alcohol, lavandulol, an isomere of nerol and geranol.

"Ambergris has also been the object of intensive investigation. By the analysis of 10 kg. of best quality ambergris, we have been able to isolate odoriferous principles of this precious material. Important degradation and gradation operations have been carried out.

"Although most of the constituents of rose oil have been determined, it contains other yet unknown compounds of the utmost importance for the accurate reproduction of the different varieties of the natural scent. Work is being pursued on this problem.

"And finally, our researches have been extended into the field of flavors. We have determined the constitution of new natural substances whose great olfactive power is certainly important for the synthetic reproduction of the flavor of raspberries."

A.M.A. Council "Bows to Reality"

THE Council on Pharmacy and Chemistry of the American Medical Association has revised its rules after 41 years of existence. The number of rules of the council for acceptance of products has been cut from 11 to 7. Most interesting of the changes is the permission to use brand names for pharmaceutical products. The statement of the council regrading this change reads:

"One of these (rescinded rules) relates to the controversial subject of 'protected' names. The Council has accepted only one proprietary name for any article, with the hope of checking the confusion that arises when a drug masquerades under many 'aliases.' It must be acknowledged that this hope has not been fulfilled. Manufacturers have continued to multiply names, and the chief result has been to remove such articles from control by the Council. It has therefore been decided to withdraw this rule and to admit multiple names—with the important provision that the manufacturer give equal prominence to the common 'unprotected' name that is or will be provided; for example, 'atabrine' would be promoted as 'atabrine, brand of quinacrine.' If physicians will use the common name (quinacrine, in this example) in prescribing, writing or talking of the substance, they will avoid multiplicity of names. In withdrawing this rule, the Council does not wish to encourage multiplication; it bows to reality."

Quite naturally the Council "bowed to reality" in this instance and, from its own viewpoint as a matter of protection, is correct in accepting conditions as they exist rather than fail to list a very large number of important and widely prescribed products. In demanding that the manufacturers give "equal prominence to the common 'unprotected' name" the Council is simply requiring that manufacturers do what they are required to do by law if they want to protect their trade names. So the change in this rule of the Council simply means that the manufacturers have overcome the demands of the Council in this regard.

Infected Talcum Powder

ACCORDING to an Associated Press dispatch of June 1, all talcum powder was withdrawn from sale in New Zealand for laboratory tests after the New Zealand health department attributed the deaths of five babies to tetanus spores carried in the powder used to dust them.

Research Fallacies

CHARLES R. Hogan, of N. W. Ayer & Son, advertising agency, warned at the recent meeting of the Toilet Goods Association than the "real pitfall" of present-day advertising is the unsound use of research, stating that "nothing is more essential to sound advertising planning than facts." He said that he did not intend to "minimize" the value of research, but that "because decisions involving millions of dollars are based on research," the advertiser must be sure that "it is done by the right people who know what they are doing and that it is interpreted by people who know how." "Research is being used to sell advertising," he continued, stating that he wished to "put all on guard" against this practice. "There is entirely too much research being conducted just for the sake of doing it."

All of this leads us to note that such practices are not only popular in advertising circles, although we have more experience with it in this classification that we have elsewhere. Advertising agencies and management counsels are probably the greatest writers of letters asking questions that would take months of intensive study—or research—to answer. And when such authentic information as one has available is given to them gratis for what it is worth to them, they generally become argumentative, having heard a different story somewhere else and having believed it. This is supposed to be research for which the client is well billed and with which the people supplying the information just beome annoyed. Research in any line of endeavor demands that the person conducting the research know something about the subject which he is investigating. Also research means exploring all angles until the truth is learned. Mr. Hogan spoke the truth when he said that "There is entirely too much research being conducted just for the sake of doing it." This does not apply only to advertising, it applies to all lines of endeavor. Research has become a catch phrase about which many people paying for it and many people doing it know little or nothing.

Cosmetics in Britain

BRITISH exports of cosmetics and perfumes are reported to be forging ahead. This exportation is being made at the expense of the home market, although there has been a relaxation within recent months whereby every increase in export business is accompanied by an equal increase in home trade. This arrangement encourages the manufacturers to go after export business, while at the same time increasing his abilities to sell in the home market.

H. W. K. Pears, chairman of Dubarry Perfumery Co., Ltd., recently addressed a meeting in London as follows:

"The Board of Trade regards our products as luxuries and severely restricts supplies to the home market to a definite quota based on our prewar output, but in view of our success in greatly increasing export trade the Board has rewarded us for our efforts by granting a welcome permission to increase appreciably the amount that we are allowed to manufacture for home consumption. In the present year we shall benefit by the lowering of the Excess Profits Tax from 100 per cent to 60 per cent. Even this 40 per cent additional profit is very acceptable, but on December 31, 1946, this unjust tax will appear for the last time in our accounts. We are one of the few companies that has achieved the remarkable distinction of having handed to the Revenue a sum considerably more than the entire capital of our company.

"Our efforts have not been entirely unrewarded, as we shall have refunded to us, to be plowed back into the business, the sum of more than £45,000 subject to income tax the benefit of which should have a very marked effect on our balance sheet in subsequent years. The 40 per cent of Excess Profits Tax remitted this year is not subject to any conditions and this will form a very welcome addition to the profits available for distribution in the form of dividends. Our export business, which is not subject to any of the limitations imposed on the production for the home trade, increases week by week and justifies us in predicting that the present year will establish a fresh record. It cannot, however, with the results which we shall expect in 1947 as a result of the repeal of the Excess Profits Tax when we shall secure the full benefits of our supreme efforts. We have many new projects awaiting the favorable moment for successful launching."

Drug Store Business Rising

DRUG stores are becoming an increasingly important factor in retail trade, E. Allen Newcomb, executive secretary of the National Wholesale Druggists' Association recently told a convention of drug wholesalers. From 1939 to 1945 drug store participation in the total retail trade increased from 3 to 4 per cent and the trend is still going upwards. Mr. Newcomb went on to say to the wholesale drug leaders representing Alabama, Tennessee, Arkansas, Mississippi and Louisiana, that drug store owners in the south should gain their full share of the $180,000,000, baby goods business expected this year, the $800,000,000 spent by the public for packaged medicines including vitamins, and the $338,000,000 worth of prescriptions written annually by doctors for the pharmacists of the nation.

From all indications there will be at least a twenty per cent increase in sales of drugs and health supplies in retail stores of the southern states during the balance of this year, regardless of action of the Office of Price Administration the NWDA do not anticipate any general rise in prices of drugs or health supplies sold in retail drug stores. All during the war, the drug industry was stable as regards prices and now despite rising operating expenses, increased production and new and efficient methods of wholesaling are expected to hold handling costs in check.

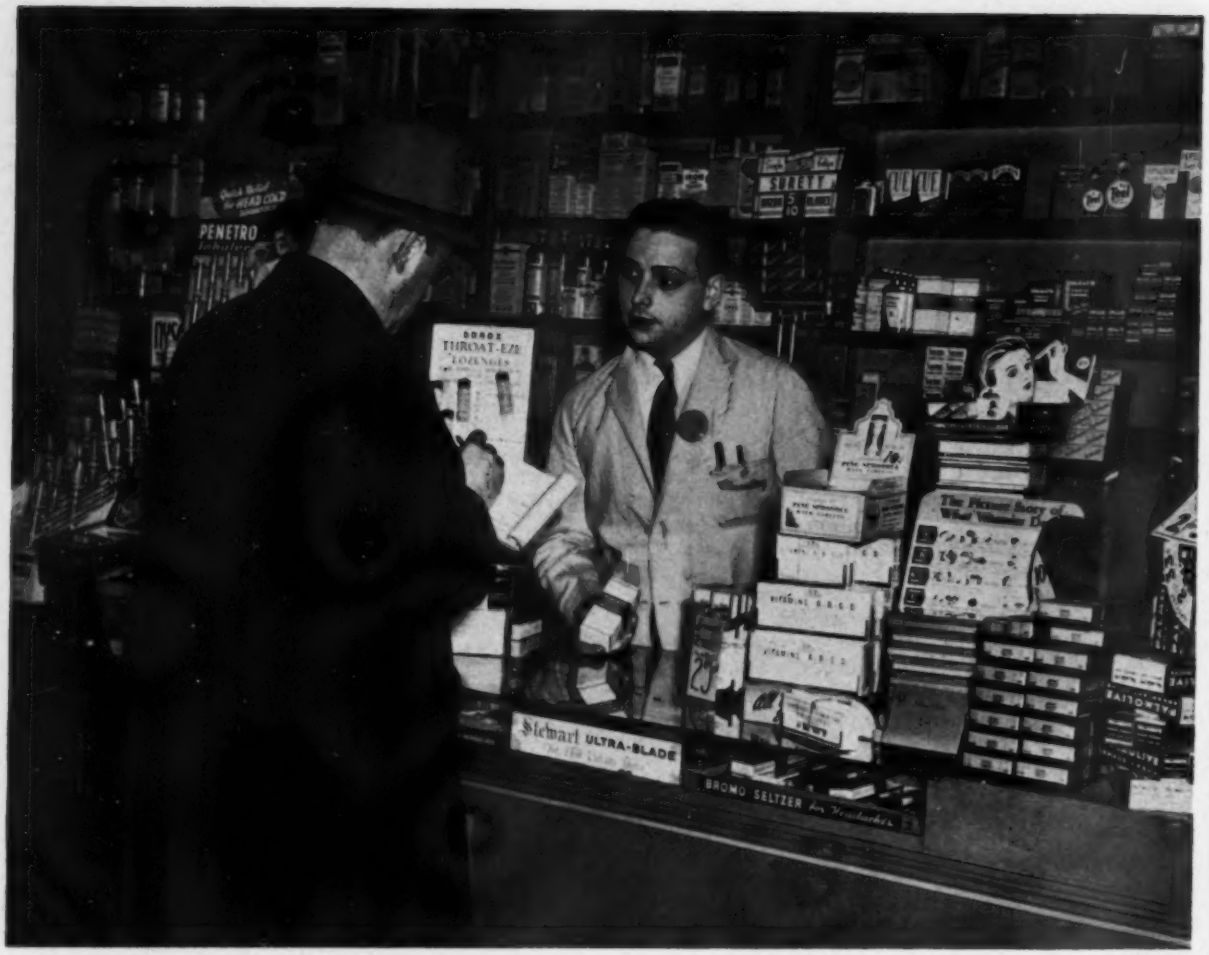
The OPA and Retailers

WHEN some department stores came out for the OPA, maybe you were just as surprised as he was, writes George E. Sokolsky, the columnist. "By all the logic of the situation," he writes, "one would expect these purveyors of goods to be antagonistic to an agency that has forced them to merchandise wares of depreciated values for higher prices."

So he investigated by getting the reports of Neiman-Marcus Company, Dallas, which he describes as "one of the highest priced department stores of the country," and the W. T. Grant Company, which operates a number of low-priced stores. Grant, who sells worker, housewife and proletariat, has been opposed to OPA, while Neiman-Marcus, selling principally to the luxury trade, has been in favor of it.

The answer lies in the following figures: Neiman-Marcus: sales 1941, $4,891,449; 1945, $16,025,695; profit before taxes, 1941, $293,394; 1945, $1,915,-883; net profit 1941, $215,129; 1945, $565,883; sales increase, 228 per cent; profit increase before taxes, 554 per cent; net profit increase, 163½ per cent. W. T. Grant: sales 1941, $130,555,907; 1945, $180,306,612; profit before taxes 1941, $9,217,393; 1945, $12,568,092; net profit 1941, $4,446,393; 1945, $4,210,092; sales increase 38 per cent; increase in profit before taxes, 36 per cent; net profit decrease 5.2 per cent.

The reason for this condition is clear in that the low-priced goods in which Grant does its business have disappeared from the market, since manufacturers will not produce them at the ceiling prices in effect. Because of this, Grant's stock of men's shirts in 500 stores on January 1, amounted to $22,000, against a normal inventory of $600,000. Shirt sales last Fall were not over 25 per cent of any prewar year. Sales of drapery material declined 80 per cent, but ready-made draperies increased 170 per cent. Sales of dresses for 1 to 6 year old children decreased 50 per cent, and for schoolgirls 7 to 16, they declined 72 per cent. During the same period, total over-all retail sales and profits reached a new high, primarily because of extremely heavy sales of high-priced novelties and gifts and less essential apparel. Novelty jewelry increased 80 per cent, luggage 92 per cent, handbags 60 per cent, fountain pens several hundred per cent, novelty aprons 67 per cent, women's coats 47 per cent, small leather goods 60 per cent, gloves 50 per cent, art goods 65 per cent, millinery novelties 170 per cent. "In other words," says Sokolsky, "essential, reasonably priced goods were unavailable; luxury goods were plentiful and sold high." A comparison of men's shirts of 1942 and those now sold reveals a price increase of 64 per cent against a deterioration in quality of 15 per cent.



KEYSTONE

It might be very worthwhile for a company with a troublesome returned goods problem to work out a salesman's "manifest". This makes it possible to keep a check on individual salesmen and their returned goods performances.

Should Returned Goods Be A Problem?

By WILLIAM T. DOYLE

From time to time individual pharmaceutical manufacturers sit down to examine what they call their returned goods problem. Since the matter is of general interest, it was thought worthwhile to survey policies and practices of several companies with the view in mind of throwing some light on a potentially perplexing subject.

To put off arriving at a hasty conclusion, it is well first to examine current business practices and objectives. Roughly speaking, the industry engages in five kinds of product selling: (1) pharmaceutical specialties; (2) deals (vitamins, "specials," etc.); (3) special quantity tablet contracts (usually fast-selling, quick turnover tablets); (4) private formulas ("name goods"); (5) biologicals.

For convenience and clarity it is probably best to take up these selling methods one by one. It is to be understood beforehand, however, that some companies

practice all five, others less. Much depends on the size and the management of the company.

Pharmaceutical Specialties

The trend for at least the past fifteen years has been toward the development of pharmaceutical specialties. This trend has been emphasized more recently by surveys showing that as much as 78 per cent of the prescriptions filled involve nothing more than the transferring of a drug from the manufacturer's container to the prescription bottle or box. There are several reasons why products manufactured by pharmaceutical companies, particularly the specialties, have attained such importance. Probably the outstanding are: effectiveness, patient acceptance, uniformity, and uniqueness. As a result, this kind of selling is profitable and productive.

Distribution—When a pharmaceutical specialty is introduced, the first step is to insure distribution. Some companies have a 7 to 14 day stocking policy before formally announcing the product to the profession. This gives them a chance to get the new item on the shelf of the retail and wholesale trade before the detail "push" is launched. This is sound because a product detailed and not stocked is a sale lost. In addition, it is demoralizing to the detail staff and a source of irritation to the physician.

Detailing—On specialty items detailing, supplemented by advertising, is the answer to moving a product from the druggist's shelf. At the present time it is estimated that there are over 7,000 medical representatives in the United States contacting physicians. The principal purpose served by the pharmaceutical representative in his detail call is to give the physician information, to build confidence for his company and encourage the physician to write prescriptions for the representative's specialties.

Follow-up—Most companies divide their detail efforts into the twelve calendar months. The specialties are then broken down so that detail effort is spread quickly over the line for the entire year. Usually three products are selected for detailing in a given month. A single medical representative can usually call on approximately 100 doctors a month. The experience of some companies indicates that there is a very definite relationship between the ratio of the number of detail men to total volume of pharmaceutical specialties.

It is clear that only concentrated, well-planned follow-up can move a pharmaceutical specialty off the druggist's shelf.

Returned Goods—When all the facts are examined end to end, the final picture illustrates that the medical representative is the answer to whether or not returned goods are to be a problem. If the man does not overstock his accounts and if his detail work is well planned and effective, there should be no returned goods problem associated with the marketing of pharmaceutical specialties.

Deals

Deals accomplish two purposes: (1) They give the pharmaceutical representative a chance to stock his accounts with fast-moving, competitive items at an attractive price to the druggist; (2) They serve as a means of getting drug store cooperation in "pushing" a specific product or class of products.

The success or failure of deals is pretty much dependent upon the ability and interest of the account to "push" a product or products at a fair return. A deal's success is also dependent upon the understanding of the salesman and his ability to recognize the needs of the account so that the possibilities of overstocking are minimized.

Special Quantity Tablet Contracts

Some companies have made provisions for drug accounts to anticipate their tablet requirements for a year. The success of this type of contract rests pretty largely on the tablet business of the drug store and the price advantage which would accrue from buying at a special price made possible by a large quantity commitment. Returned goods in this classification are not usually a problem because the drug account splits his year's needs into periods that he can plan for with only a minimum possibility of error.

Private Formulas

The trend has been away from the production of pharmaceutical products under private formulas. In the past cough syrups, certain classes of tablets, and some ointments were made up for individual druggists and sometimes dispensing physicians, but as time has gone on the Food and Drug Administration's rulings are more exacting and specialty products are increasing in popularity. The result has been a decline in private formula requirements.

As with special quantity tablet contracts, private formulas should not constitute a returned goods problem in those instances where companies continue to manufacture this line of products. Usually the company has an agreement whereby the drug account can not return what is not sold.

Biologicals

Biologicals present a very special kind of production and selling problem. Expiration dates are necessary if the desired therapeutic and immunization results are to be obtained. It is therefore of great importance that the drug company representative be very cognizant of the stocking needs of his biological accounts. As with the pharmaceutical specialties, the movement of biologicals depends pretty much upon detail support. It is therefore the function of the detail man to make certain that his stocking takes into consideration the size and reputation of the account plus his own ability to

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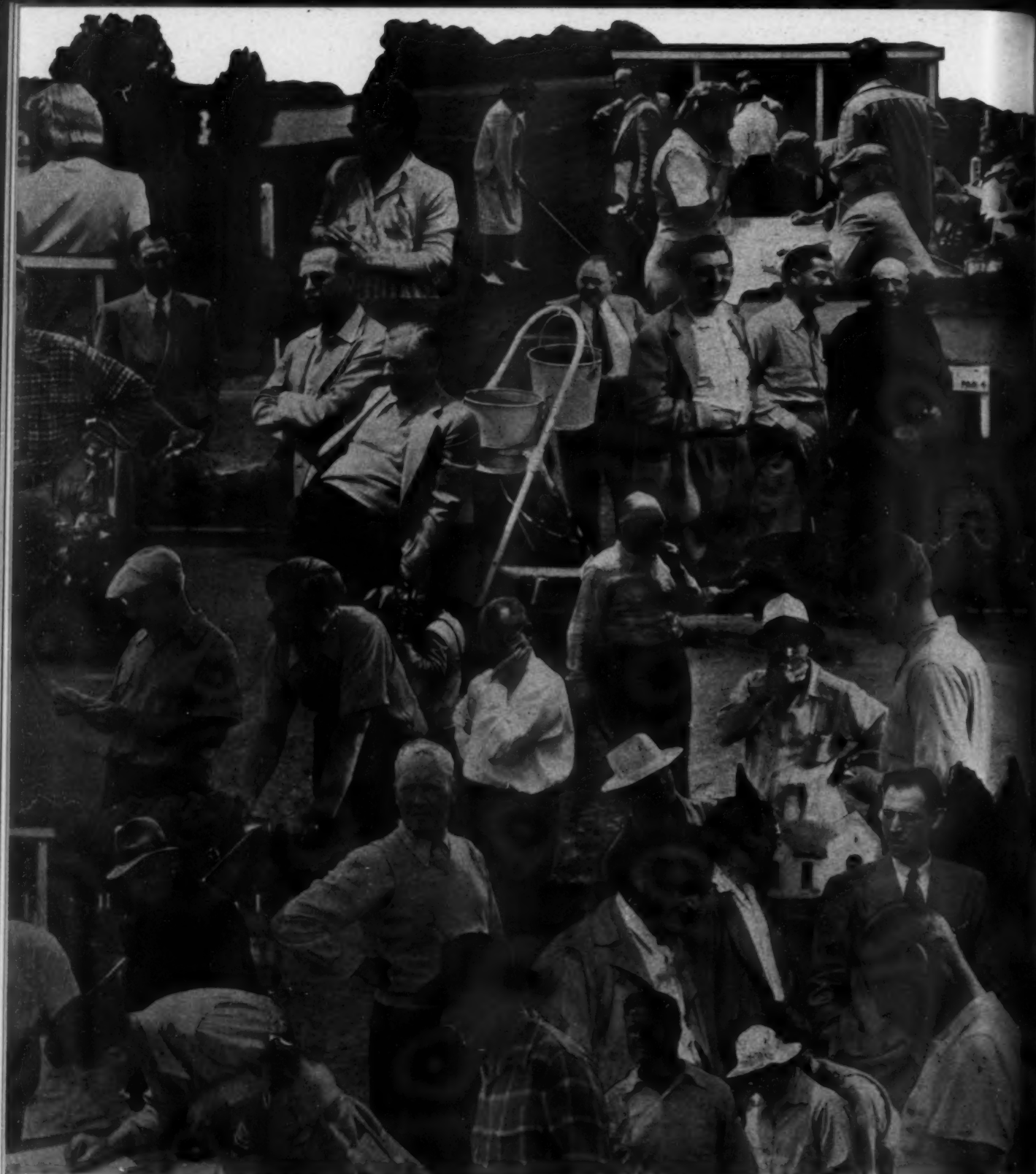
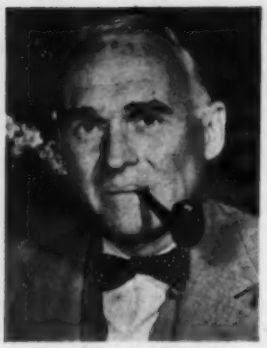


THE ADMA MEETING

Virginia Beach *May, 1946*



JOHN S. ZINSSER

HOLDING its first general meeting since two years ago, the American Drug Manufacturers Association scored a record attendance at the Cavalier, Virginia Beach, Va. Demands of organized labor and the disruptions caused by them, together with uncertainty as to social and political reconversion were indicated as seriously upsetting factors. Dr. A. W. Lescohier, retiring president of the association, "pointed with pride" to the scientific accomplishments of the association:

"The scientific side of our association has acquired a constantly increasing importance and has been a potent factor in raising the quality and dependability of medicinal products, improving all types of standardization, and developing scientific knowledge leading either directly or indirectly to new medicinal agents. The impact of our scientific groups has reached far beyond the interests of our association and has had a part in shaping scientific medicine throughout the world."

However, from the angle of general basic condition, Dr. Lescohier said:

"The American people are inclined to take for granted that the future of America is assured, but to anyone possessed of even a reasonable degree of observation there is a distressing evidence of political-economic deterioration which, if unchecked, may undermine the prosperity of the nation. If our people lose their zest for personal endeavor and become dedicated to the pernicious philosophy of using the extortionist's means for obtaining unfair objectives, higher and higher wages as a reward for less and less personal effort, they will kill the goose that lays the golden egg.

"Business must insure to the American people a high standard of living. This is a *sine qua non* of the permanency of our present economic system. It also must stand firmly on the principle of an adequate profit incentive to the investor so that productivity will be maintained and venture capital will flow into the expansion of industry. Only thus can we accomplish the best utilization of our industrial potentialities and brains to make the future secure for our people."

A similar view of conditions in this country was expressed by Executive Vice-president Carson P. Frailey, who said:

"Conditions encompassed by that period (the last two years) gave rise to many major problems. Some were industry-wide, others related mainly to the association but indirectly affected the industry at large. In every instance the executive committee as the governing body of the association exhibited genuine statesmanship in its decisions touching these matters. So much for the past.

"For the future—I envision even greater research activities on the part of member firms with the public interest at all times transcendent, to the end that the achievements shall continue to provide an effective answer to that challenging question asked over nineteen hundred years ago:—'What do yè *more* than others?' "

Legislative problems were reported by the Committee Chairman Leslie D. Harrop who told of the desire of the Food and Drug Administration to require certification of selected drugs, such as are now required of insulin and penicillin. He also commented on the FDA desire to require warnings on prescribed drugs such as thiouracil. Disturbance was reported in the controls over habit-forming drugs, such as the barbiturates, because of uniformity among federal, state, and local laws.

Comment was made on the government attitude toward patent rights in inventions coming from private work on publicly arranged programs. The feeling was expressed that the government should be content with freedom of use and not restrict commercial applications. There was a discussion of the trends reflected in the several bills before Congress directed to the establishment of a national policy and practice in research and other branches of scientific endeavor.

Treasurer Donald S. Gilmore reported a cash balance of $47,000 and government securities of $37,400, together with a balance of $28,300 in the special fund for cooperative research in the electronic testing of ampul medicaments. Contact Committee Chairman Frank O.

(*Continued on page 884*)

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Off-Season Sales Opportunities

THE statistical table on this page deserves the attention of every manufacturer of cosmetics, sales manager, advertising man and, eventually, retailer because it supplies evidence of a fact that has been suspected by many cosmetic merchandisers for some time, namely, that over several years the growth-periods of cosmetic sales have not coincided with the so-called "seasons" but rather with the slow months that generally are neglected by advertisers and retailers alike.

If this is correct the cosmetic industry may have to revise some of its merchandising practices and we may have discovered, also, at least one of the reasons why cosmetic sales have grown in recent years as rapidly as they have, in spite of the absence of such natural stimulants as fashions, popular trends and so on.

Looking at the statistics, these show in the first row the habitual "per cent to total annual sales" of the month by month distribution plan of a leading department store in the northern section of the nation, which, as a whole, consumes the proportionally largest volume of cosmetics and exerts the heaviest influence upon the merchandising practices of the cosmetic market. Some adjustments of these figures will have to be made to meet the requirements of southern stores and care, of course, must be taken from year to year of the shifting Easter date during the March-April period. Percentages are stated without fractions.

The charted part of the table shows that, broadly speaking, the cosmetic year starts off with a comparatively high sales-per-month rate which declines slightly during late winter and early spring, rises (probably as the result of the conventional gift dates) from March to June, after which occurs a sharp drop in July and August. Recovery comes with September and October, leading up to the Christmas climax of the cosmetic year.

This conventional pattern of the cosmetic sales year forms the basis of the promotional activities of the industry. It influences the release dates of novelties, special promotions, the high spots of its advertising campaigns.

Yet, there has always been some doubt whether it constitutes in reality the most suitable division of the year into seasonal sections. Little difficulty was met by manufacturers and advertisers during the years following the first world war, when there still existed a "social" winter season, followed by an equally universally accepted summer season, with Labor Day thrown in as a convenient pivot.

However, dress and cosmetic usages have undergone many changes since then. Cosmetics have acquired new uses and are differently applied and often for different purposes, which carry them far outside the limits of such a greatly simplified marketing picture as

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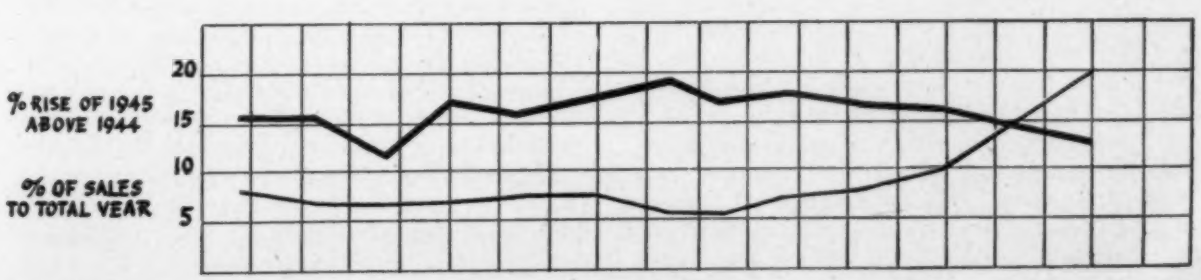
GROWTH OF COSMETIC SALES MOST MARKED DURING OFF SEASON PERIODS

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
% OF SALES TO TOTAL YEAR	8%	7%	7%	7%	7.5%	7.5%	5.5%	5.5%	7%	8%	10%	20%
RETAIL SALES FOR 12 MONTHS ending with: (million dollars) 1945	730	740	733	771	757	772	783	779	791	792	794	805
RETAIL SALES FOR 12 MONTHS ending with: (million dollars) 1944	628	635	651	654	648	653	657	662	666	674	682	707
% RISE OF 1945 OVER 1944	16%	16%	12%	17%	16%	18%	19%	17%	18%	17%	16%	13%



that which cuts the year just into a cold and a warm season. The use of cosmetics has become more specific, more directly applicable to the needs of the day, rather than to a sequence of months.

As the result major seasons are not only broken up into minor segments, but each of these segments has started to overlap, necessitating new seasonal sales arguments not only for groups of cosmetics but for the individual members of each group.

This interplay of economic and social forces, unfortunately, defies any attempt of demonstrating it pictorially, or making it part of a statistical chart. It can be felt more than seen. But there are certainly few cosmetic manufacturers who are not fully conscious of it, and manufacturers generally are preparing to deal with it in one manner or another.

Retailers know only too well that the comparative similarity of the month by month cosmetic sales volume during the first six months of the year, as demonstrated in the chart, by no means reflects a similar tranquillity of the week by week, day by day, sales results of the store. Not only are stores dealing today with a definite pre-spring, spring, and post-spring season within the interval of a few weeks ranging around Easter, but there are noticeable and, as the records of some stores appear to show, repeatable peak days and peak periods up to June, the to be expected Easter, Mother's Day and Father's Day dates.

New sales forces are at work and they affect not only the prime sellers of the cosmetic list but their roots go right down to the foundations of the cosmetic market.

To continue the example of the early part of the year, numerous established cosmetic articles of heretofore more general use have developed specific spring uses which make them good sellers during the first warm days when they often practically dominate the counter, singly or in a group.

Similar situations have developed during other parts of the year, as when the start of the permanent waving season brings suddenly an increasing demand for brilliantines and other hair restoratives. This demand, ranging in the past generally from February to June, with a revival later in the year, has now acquired an up to the end of the year status.

Novel consumer needs appear with the return of the cooler weather and create an entirely different counter picture from that of a few seasons earlier. It is, of course, only too obvious that, if cosmetics are bought for different purposes, or for a larger variety of purposes, this must exert an effect upon purchasing habits and even more so upon purchasing dates.

Fashion enters to a lesser degree into this situation more than is generally suspected.

Later in the year, after the coming home, school and college rush are ended, the weather and the gift season take a hand in making the last three months of the year a rather topheavy 38 per cent of the total annual sales of the store.

However, with all these new forces supporting sales through 10 months of the year, there still remain those "sensitive" two months between the ending of the "spring" season and the start of the "fall", July and August. Sales drop during these 9 weeks to their lowest with an approximate 11 per cent to the total of the whole year.

Admittedly these are percentages. Summer sales percentages would rise if only the sales volume of the other months could be kept sufficiently low or, vice versa and preferably, a substantial rise in summer sales would automatically improve the percentual position of the two summer months by lowering the corresponding sales percentages of the remaining months. The second method finds increasing attention among retail sales executives.

It is true that July and August are slow months for many other types of merchandise. However, the arguments which are generally advanced as reasons why July and August should not be as active as the remainder of the year somehow are not convincing as they apply to cosmetics.

In fact, cosmetics have been running so persistently contrary to the behavior of other merchandise during the last years that their conformity, in this instance, should not be accepted as an unavoidable condition.

Certainly the consumer does not look upon the situation with the same eye. While cosmetic manufacturers and retailers seem to take their summer quietness uncomplainingly, consumers have followed their own line of action, as they frequently have done in similar cases before.

It may be that war conditions have contributed by making every cosmetic need more acute. The heat makes itself certainly more noticeable for a person at work than while she is luxuriating under the summer sun. In fact, almost every cosmetic necessity has become greatly accentuated during the last years and the effects of this are bound to show upon the counters.

At any rate, a new note has come into the cosmetic summer demand and so it has into other sections of the cosmetic year. It finds confirmation in a study of the month by month statistics, assembled by DRUG AND COSMETIC INDUSTRY, which form part of the statistical table already several times referred to.

For the convenience of the reader the annual 12 months sales of cosmetics for the years 1944 and 1945 are charted below each monthly "per cent to total sales" section of the chart, together with a fourth horizontal line, showing the per cent rise of each 12 months column of 1945 over the corresponding figure of 1944.

As will be noticed, real growth is most marked during the months that are most often neglected in sales planning. For example, sales rose 16 per cent over 1944, as much as during the generally very active January during February of 1945 and, outstanding of all, there is a heavy rise of 19 per cent registered during July. In fact the July to September combination of months produces the highest sales rise, at an average,

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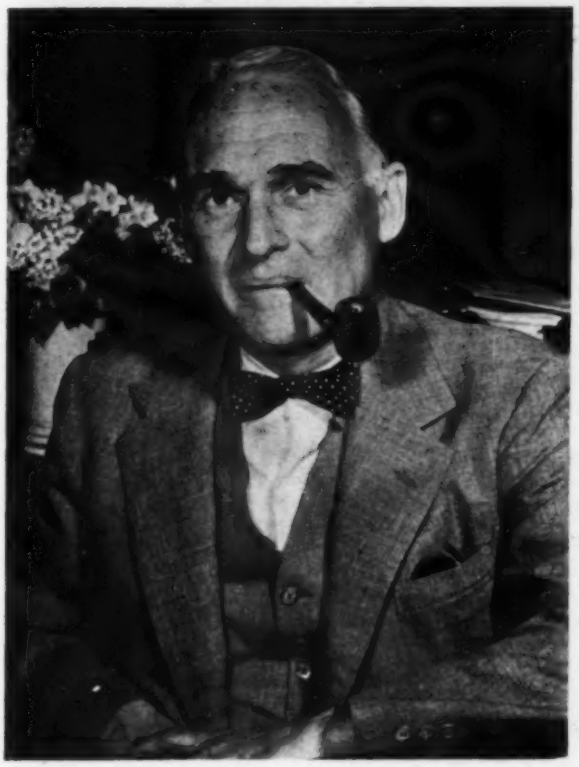
JOHN S. ZINSSER

He Tripled His Company's Business



THE year 1945 marked the one-hundredth birthday of Sharp & Dohme—"a century devoted to the conservation of life." It also provided an opportunity for the observer to examine the company's progress during the last ten years under the guiding hand of President John S. Zinsser.

Zinsser came to Sharp & Dohme in 1935 from Merck & Company. It was more or less generally known that S & D was in need of a management hypodermic. John Zinsser was chosen to do the job.

When Zinsser went to work for Sharp & Dohme he was quick to see that a sound research program was needed, and that certain changes must be made in the sales policy. Once the first two steps were taken, careful consideration had to be given to setting up a strong management team. W. L. Dempsey, an expert in management and public relations was one of those chosen. The growth of Sharp & Dohme under the Zinsser regime has proved the wisdom of Zinsser's judgment.

One of the interesting early research programs initiated by John Zinsser was a study of promising chemotherapeutic agents—especially the sulfonamide group. As a result of this foresight Sharp & Dohme introduced Sulfasuxidine in 1942, the well-known Sulfamerazine in 1943, and sulfathalidine this year.

Probably Sharp & Dohme's best known contribution to the war effort was its development of a dehydration process to produce dried plasma. This process, a development of Sharp & Dohme's Medical Research Division, is known as the lyophile technique. It involves rapid freezing and dehydration of the frozen substance under high vacuum.

Clinical studies carried on by the Division of Medical Sciences of the National Research Council revealed that dried plasma was by all odds the most completely satisfactory blood substitute for the treatment of burns, shock and other serious states where protein and fluid replacement are of prime consideration. Sharp & Dohme produced the first 15,000 units of dried plasma to be delivered to the Armed Services. Dried plasma proved to be one of the principal life-saving agents in World War II.

Zinsser is noted for his honest effort to be direct and unaffected. Men like his lack of stuffiness . . . his colorful language . . . and his confident leadership.

Zinsser is a graduate of Harvard (A.B.) and Columbia (M.A.). During World War I John Zinsser was a captain in the chemical warfare service. After his war service, Mr. Zinsser went to work in his family's chemical business. He remained there thirteen years. Then he became associated with the Banker's Trust Company on special assignment regarding Securities and Exchange Act legislation. The Banker's Trust job was followed by a one year period with Merck & Company as technical director.

The Zinsser hobbies are the violin, horseback riding and a farm at Agricola, Virginia. Like every responsible business leader, Mr. Zinsser takes an active part in numerous community and association activities. Just last May, the popular Sharp & Dohme boss was elected to the presidency of the American Drug Manufacturers' Association.

To better understand Mr. Zinsser's business thinking, it might be well to examine a recent stockholders' report. Said the Sharp & Dohme President.

"Our progress in sales, production, research and the business functions, to the extent that conditions permit, has been steady and our attention has been directed both toward improving our comparative picture and in laying foundations for the future.

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T.G.A. CONVENTION

PAUL H. DOUGLAS

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Paul H. Douglas, Bourjois, Inc., New York

First Vice-president

Norman F. Dahl, Prince Matchabelli, Inc., New York

Second Vice-president

John A. Ewald, Allied Products, Inc., New York

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Secretary

Joseph Keho, Dorothy Gray, Ltd., New York

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OPENING with a discussion of raw material and container shortages, the Toilet Goods Association held its annual meeting at the Waldorf-Astoria Hotel, New York, May 15 to 17 with an attendance that shattered all previous records. The first two days were given over to the general sessions, and the third day was given over to the scientific section of the association.

At a round-table discussion of supplies of aromatic chemicals and essential oils, participated in by R. M. Stevenson, of Givaudan-Delawanna; A. L. van Ameringen, of van Ameringen-Haebler, Inc.; V. H. Fischer, of Dodge & Olcott Co.; and Joseph A. Huiskins, of Fritzsche Brothers, Inc., the part of the industry in the war effort and the prospects for future supplies were discussed. Mr. Stevenson felt that production will continue at high levels for some time, and that prices will trend upward due to anticipated higher costs for maintenance and freight rates. New equipment is unobtainable.

Mr. van Ameringen spoke of technical improvements resulting from the war period. Geraniol is now being produced synthetically, although this process is still confined to the laboratory stage. The high prices of essential oils will foster synthetic production of isolates such as citronella compounds, citrol, and ionones. Mr. Fischer said that reports from the Far Eastern centers are conflicting and therefore the future of supplies from these places are a matter of conjecture. The Dutch East Indies and Formosa are still cut off, which sources normally accounted for approximately 2,000 tons of essential oils including citronella oil from Java.

With regard to the French floral oils situation, Mr. Huisking said that while acreage has not been plowed under to the extent generally reported, it is an accepted fact that in 1939 there was a number of old plantations yielding little jasmin, rose, and tuberose, and these plantations have not been replaced. Many of these have been entirely neglected and many were sown to vegetables. The heavy rains of last Summer were detrimental and the Grasse region has suffered from lack of fertilizer.

Herman L. Brooks, retiring as president after occupying that office continuously during the ten years of existence of the association and recently elected honorary chairman of the executive committee of the association was further honored at lunch by tributes from representatives of all branches of the industry and by

presentation of a Capehart radio. In his presidential address, Mr. Brooks called for continual vigilence so as not to disturb the "enviable position which the industry now enjoys." He suggested that when manufacturers consider formulation of their plans and policies for the future that they keep in mind the effect of their planning on the industry as a whole. This is essential, he said in order to "keep our house in such good order that we shall have no trouble with severe regulations and legislation." Mr. Brooks deplored the recklessness of manufacturers who "cut corners" in packaging, advertising and labeling. He called upon the association, the trade, and the consumer press to make every effort to curb such practices.

Executive vice-president S. L. Mayham said that he did not favor revision of the by-laws of the association to permit action by the association on trade practices or on matters of deep controversy between members, since he felt that no action on trade practices by the association could be adopted without seriously interfering with the growing tendency on the part of all members to work together for the common good.

Director of the association's scientific research and standards committee H. D. Goulden stated that his group has under consideration standards for triethanolamine, cetyl alcohol, and double and triple-pressed stearic acid. So as to broaden the activities of the committee, there is under consideration the feasibility of developing standard methods for determining physical phenomena of finished products. Seventeen standards have been issued by the committee, including mineral oil, glycerin, borax, boric acid, petrolatum, crystalline petroleum wax, amorphous petroleum wax, beeswax, talc, precipitated chalk, titanium dioxide, propylene glycol, zinc oxide, magnesium carbonate, zinc stearate, and magnesium stearate.

Association counsel Hugo Mock said that he saw no reason why cosmetics should not be sold to grocers and outlets other than drug stores, department stores, and chain stores. Naturally, he said it is up to each firm to establish its policy in this regard, but so long as drug stores sell candies, toys, cigars, books and hundreds of other non-drug items, there are hardly able effectively to complain about grocers invading the field of retailing cosmetics.

At the scientific section meeting John F. Mulvaney, of Evans Chemetics, Inc., reported that the impurities responsible for the previously unpredictable behavior of lotions whose active ingredient is thioglycolic acid have been determined and methods of eliminating them have been devised.

A. Troy and A. C. Bell, of the research and development department of Colgate-Palmolive-Peet Company, described a method of estimating mono, di, and triglycerides in a mixture of all three. The method consists of splitting the esters with alkali and determining the glycerin so formed by oxidation with periodic acid. This figure, together with an estimation of the monoglyceride content, makes it possible to calculate the percentages of all three. *(Continued on page 883)*

NEW PRODUCTS, AND HOW TO GET THEM

A Plea for a Sound New Product Development Program

During the war years many companies set up committees to plan post-war activities. The hue and cry was for continued up-to-the-hilt production, followed, of course, by high income. It was fashionable to talk post-war plans in terms of new products. Now with the war behind us, it might be well to evaluate new product development in the light of the harsh realities.

The term "new product" has been so bandied about that it is desirable to start with a definition. "New product" means different things to different people. Some companies consider a new product as such only when it is a specialty. Others are prone to view even a competitive item with no special features as a new product. Thus when new product discussions occur it it well to begin by asking for a definition. We have found that it clarifies matters considerably if we consider a "new product" as—(1) A unique development—something which can be protected by patents. It is the result of your research and belongs solely to you. (2) An improved new or old product which has exclusive features. These advantages take it out of the "just competitive class."

Research is Needed—There is no short-cut or magic formula to achieve new product success. It requires hard, intensive research. It is only when new product development rests on a firm research foundation that important sales benefits will be felt.

Industrial research has been an important force in creating additional business through new or improved products, or finding new uses for old products. If properly directed and controlled it is looked upon as a sound business investment. During the past thirty-five years U. S. industry has become more and more research-minded. The number of industrial research laboratories has increased from a very few to more than 3,000 in 1945. The War's rapid ending has been dramatic proof of research's place in the world we live in. Neither nations nor companies can sit back to rest on their laurels of past accomplishments. Only those companies who are ready and willing to establish adequate research facilities, ably administered by top-flight personnel, and supported by an alert management will succeed in the difficult years to come. The rewards, however, are well worth the "blood, sweat and tears."

Where Do You Get New Product Ideas —New product ideas come from different sources. Ideas for new products should not be the exclusive function of any one person or department. Management should encourage all those within the organization to be new product idea-minded. While it is doubtful if many new ideas will come from departments not concerned directly with the consuming public or research it is sound policy, nevertheless, to promote alertness and creative instinct among the organization as a whole.

(Continued on page 885)

Physio-Chemical Aspects of the Cold Wave Process

By I. R. HOLLENBERG, M.S.*

THE cold wave came into being as a war-baby; but the ending of the war has increased rather than lessened its rate of growth and it has been accepted by the public as a new and welcome addition to the ever-growing line of beauty preparations. Due perhaps to its comparatively recent origin, there seems to be a dearth of general knowledge on the subject and a wealth of mis-information and half-truths, even within the industry itself. This paper was not written to champion the cause of the cold wave, but rather to throw some light into a badly beclouded field and to substitute some facts for the misconceptions which seem to have grown up around the subject.

All permanent wave processes, whether hot or cold, seek to change the structure of the hair so that it may be shaped to the desired form and remain in that condition for a reasonably long period. Both methods achieve this effect by subjecting the hair to chemical action. The older method uses heat, which is applied by various types of machines in order to speed up the chemical action of the solutions used. The novelty of the cold wave lies not in the fact that it subjects the hair to chemical treatment, but that it does away with the necessity of using heat and the somewhat elaborate and cumbersome machinery used in applying it.

In any discussion dealing with the treatment of hair, it is necessary first to consider at least briefly the nature and structure of the hair itself. All animal hair, including human hair, is composed of keratin, a typical protein consisting of elongated molecules of condensed amino acids. The exact chemical nature of human hair has long been in dispute. Mullin[1] reported on early investigations into the chemical structure of the hair. Stary[2] was the first to postulate the theory of cystine cross linkages as the basis of the hair fibre. However, it was Speakman and his associates[3, 4] who gave the first really clear structural picture of the chemical make-up of human hair. More recently, Phillips and others[5, 6] investigated the effect of various chemicals on the hair. As a result of the work of these and other investigators, we have today a much clearer picture of the chemical reactions involved in the waving process.

*Van Dyk & Company, Inc.

The hair owes its shape to the distribution of cystine, which is estimated to constitute about 15 per cent of the hair protein. The cystine molecule consists of two amino acid groups linked together by two atoms of sulfur. These cross linkages persist in an endless chain throughout the hair structure and give the hair its form and characteristics. The action of the chemical reagents used in all waving methods, whether hot or cold, is aimed at these all-important -S-S- links. If the cystine bond can be broken, the hair may then be reshaped to the desired form.

Early heat waving methods used solutions of alkalies, such as ammonia, borax, carbonates, etc., to hydrolize the cystine linkage. The heating period was rather long, and stronger alkalies were used in order to speed-up the process. Finally, various sulfites were introduced into the waving solutions, which were more effective. This is in brief the essential nature of the hot wave method at this date.

The action of the reagents used in the cold wave is also directed at the cystine linkage. The waving preparation is a dilute solution of ammonium thioglycollate which breaks the cystine bond by reducing the -S-S- link, forming SH groups and so splitting the two halves of the cystine molecule into two molecules of cysteine. With the breaking of the cystine linkage, the hair can be easily shaped to the desired degree of curliness. The next step involves the application of a solution of a mild oxidizing agent, commonly, but erroneously, termed a "neutralizing" solution, consisting usually, but not necessarily, of acidified hydrogen peroxide. The effect of this treatment is to transform the cysteine to cystine by oxidizing the SH group and reconstituting the cystine molecule. Due to the reshaping of the hair, the location of the new cystine cross linkages is naturally different and consequently the hair retains its altered form and cannot revert to the original. Before the waving solution is applied, the hair is given a thorough shampooing in order to remove oils, sebum, etc., which might hinder the penetration of the solution. It is also common practice to shampoo the hair at the finish of the waving process in order to remove all traces of reagents.

Ammonium thioglycollate has been found to be the

safest and most effective reducing agent for use in cold wave solutions. Other salts were tried at first; but today the ammonia derivative is used in the great majority of cold wave formulations. Production of this material on a commercial scale presented considerable difficulties. A particularly vexing problem was the prevention of the formation of side reaction products which would tend to interfere with the waving process and affect the permanence and tightness of the curl. Conventional means for the purification of organic chemicals, such as vacuum distillation, proved ineffective. The latter method, for example, due to the peculiar nature of the product, caused the formation of additional side reaction compounds. After several years, a process was developed, employing highly specialized equipment, whereby a commercial product is obtained that is stable, uniform, and free from the offending impurities.

Quality of the raw material therefore is an important factor in the production of cold wave solutions. But, equally important is the necessity of maintaining rigid and accurate control during the manufacturing process. Today the cold wave is no longer a novelty and has been adopted by leading manufacturers of hair preparations. These firms have, through experience and research, developed methods of manufacture and control which insure the quality and uniformity of the finished preparation. They maintain modern well-equipped laboratories and employ elaborate systems of control which are comparable to the best used in the drug and pharmaceutical industry.

Other materials used in cold waving solutions are wetting, clouding, and perfuming agents. These are highly specialized products, in most cases developed for this particular application. Not only do they have to be stable in the presence of the reagents used in the cold wave solutions, but they also should not interfere with their waving action.

It can be seen from the foregoing that the development of the cold wave is an evolutionary rather than a revolutionary process. Like all new developments, from the two-wheeled bicycle to the horseless carriage, it has met with criticism—some reasonable, some ridiculous. Time has shown up this criticism in its true light. The cold wave is not the last word in wave preparations. But, it has found its place in the field. Some hair is best suited to hot waving, some to cold waving. The skilled operator knows which to recommend and apply. There is nothing innerently more irritating in the reagents used for the cold wave than in those used for the older method. There has not been a single case of dermatitis in the plant of the world's largest producer of ammonium thioglycollate, which has manufactured and handled hundreds of tons of concentrated material. This is particularly noteworthy in view of the relatively wide incidence of complaints of this nature in the chemical industry as a whole. The results of patch tests

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BLACK STAR

The sole source of lanolin is wool fat. Secreted from the sebaceous glands situated on either side of each hair follicle, the wool fat forms a protective, water proofing coating on the delicate fleece fibers. It is generally removed by washing before the wool is spun into cloth.

LANOLIN

By M. A. LESSER

DESPITE its long and well established place in preparations for the skin, the last year or so has seen a notable renewal of interest in lanolin. Of course, some of this interest has been stimulated deliberately to call attention to products containing lanolin. This is all to the good, for lanolin is one of those materials which should not be taken for granted—a fact made painfully apparent during war-time shortages. Moreover, there are certain facts about lanolin, brought to light during recent years, which well warrant the attention of those who utilize this material.

A rather versatile substance, lanolin finds use in about twenty different industries. Large quantities are employed in making products for dermatological and cosmetic use, because, in addition to certain other valuable characteristics, lanolin combines excellent emollient action with high emulsifying properties.

For drug and cosmetic use, lanolin is provided in anhydrous and in hydrous forms. The former, *adeps lanae* U.S.P., may be described as a water-free, purified, fat-like substance obtained from the wool of sheep. Anhydrous lanolin, mixed with 25 to 30 per cent of water yields the almost white, semisolid product known as *adeps lanae hydrous* U.S.P., or lanolin. At this point, it should be mentioned that when these materials are specified in formulas or the like, the term "lanolin" refers to the hydrated product. When the water-free product is intended, the qualifying word "anhydrous" should be used to avoid confusion.

The sole source of lanolin is wool fat, often called wool grease, neutral degras, or "yolk." Secreted from the sebaceous glands situated on either side of each hair follicle, the wool fat forms a protective, water proofing coating on the delicate fleece fibers. This wool

fat is generally removed by washing before the wool is spun into cloth; the fat or grease being recovered from the scouring liquors. However, other methods may also be used. According to Priest,[1] the wool may be extracted directly with solvents, or it may be subjected to very low temperatures, after which the grease may be dusted out as a powder.

Although crude wool grease has been used in ointments and the like since ancient times, modern drug and cosmetic requirements call for highly purified products. Singularly enough, purified wool fat or lanolin does not appear to have been available until about 1882, when Braun and Lieberlich patented a method for refining the crude grease. These workers were also the first to use the word "lanolin" to describe their hydrated, refined product.[2] Since then, quite a number of processes have been developed for treating the crude wool grease to yield the high-grade materials now available. Improved methods are still being worked out, as is evident in the recent patent and technical literature.[1, 3, 4, 5]

Anhydrous lanolin is a brownish yellow material of rather tough texture. Since it can be mixed with about two or three times its own weight of water, one of the principal uses for anhydrous lanolin is for the preparation of the hydrous varieties. The lanolin does not dissolve in the water, but is miscible with it. It is sparingly soluble in alcohol, but is freely soluble in ether, chloroform, acetone, and other solvents. Anhydrous lanolin is particularly well suited for mixture with other fats; such combinations being capable of absorbing considerable quantities of water or aqueous solutions. Anhydrous lanolin is too tenacious to be used alone and it is often softened for dermatologic use by mixture with petrolatum.[6]

Hydrous lanolin is a nearly white ointment-like mass that can be mixed with up to about twice its weight of water without losing its desirable consistency. Purified grades of both water-free and hydrated lanolin have only a slight odor. This, of course, can be masked by the use of suitable perfuming compounds, but other methods have been devised to deodorize lanolin. Rather interesting is a patented method[7] specifying the use of X-rays for this purpose.

Worthy of mention is Lower's[3] observation that the properties of lanolin can be modified in different ways to meet special requirements such as melting point, water-absorbing capacity, color, length of "pull" or "string", or the like.

In spite of its greasy feel, fatty appearance and the fact that it is often called wool fat, lanolin is not a fat in the chemical sense because it does not contain glycerides. Although softer than most such materials, lanolin is more properly classified as a wax since its fatty acids are esterified by higher alcohols and not by glycerine.[8] Being a rather complex natural product, the composition of lanolin is not fully known, but considerable work has been done to determine its various components.

It is known that lanolin contains sterols as well as triterpene and aliphatic alcohols. These alcohols may be free (up to about 7 per cent) or combined with higher fatty acids as esters. The acids, which also may be free, include lanoceric, lanopalmitic, carnaubic, myristic, oleic and perhaps cerotic and palmitic acids.[9] However, interest is not centered about the fatty acids, but rather upon the alcohols to which are attributed many of the valuable properties of lanolin, such as its emulsifying action and emolliency.

By saponifying the fatty acids it is possible to separate the alcohols as unsaponifiable matter. Constituting nearly 50 per cent of the product, and generally known as wool wax alcohols, their approximate composition has been given[1] as follows:

Cholesterol	25-33 per cent
Cholestanol (dihydrocholesterol)	2- 5 " "
Lanosterol	21-27 " "
Agnosterol	0- 5 " "
Other alcohols	25-50 " "

"Other alcohols" include lano-octadecyl alcohol, lanyl alcohol, and probably cetyl alcohol and ceryl alcohol. Of these wool wax alcohols, cholesterol is generally considered the most important, but newer work indicates that other members of the combination also have valuable roles.

A number of qualities or grades of lanolin are available commercially. Standards of quality for pharmaceutical use are provided in the U.S.P. and in other Pharmacopoeias. However, as pointed out by one writer,[10] a lanolin may meet the requirements of the U.S.P. and still be a poor cosmetic product with regard to color and odor. A good cosmetic lanolin, he feels, should not turn dark when used in cosmetic preparations. It should have a free cholesterol content of 1 per cent, a 13 per cent combined cholesterol content and a total cholesterol value of 14 per cent.

Lanolin has long maintained its popularity because the purified product is practically inodorous, blends well with many drug and cosmetic ingredients and, unlike most other animal fats, does not readily become rancid.[11] Especially important, however, is the fact that lanolin is one of the most efficient emollients available. It is outstanding for its ability to soften the skin, render it more pliable and supple, act as a lubricant, and combat harsh effects. A good part of this beneficial action may be attributed to the observation that lanolin is analogous in function and composition to human sebum. It has frequently been remarked[2, 12, 13, 14] that lanolin is the only commercial fatty substance which approximates the natural fats excreted by the sebaceous glands of the skin. Because its chemical composition resembles sebum closely, Fantus[15] has said that it might be considered the "ideal restorative for the sacrificed fat of the skin."

Lanolin is also noteworthy for its ability to penetrate the skin and to promote absorption through the

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PROPRIETARY MEETING

KENNETH A. BONHAM

Officers

President
Kenneth A. Bonham, Emerson Drug Company, Baltimore

Honorary Vice-presidents
James Hill Jr., Sterling Drug, Inc., New York
W. W. White, Maywood, N. J.

First Vice-president
Lupton Patten, Chattanooga Medicine Co., Chattanooga, Tenn.

Second Vice-president
H. H. Hoyt, Carter Products, Inc., New York

Third Vice-president
Joseph D. Bohan, Centaur Division of Sterling Drug, Inc., New York

Executive Vice-president
Dr. Frederick J. Cullen, Washington, D. C.

Secretary-Treasurer
A. K. Barta, Washington, D. C.

Chairman of Scientific Section
Dr. W. L. Sampson, Merck Institute of Therapeutic Research, Rahway, N. J.

Chairman of Veterinary Section
Dr. H. W. Sawyer, Dr. L. D. LeGear Medicine Company, St. Louis

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CREATION of four committees to clean up advertising of proprietary medicines was proposed by Dr. Frederick J. Cullen, executive vice-president of the Proprietary Association at the annual meeting of the association held at New York's Biltmore Hotel May 13 to 15. Dr. Cullen, who delivered a sharply-worded attack on medical advertising copy as it appears at present, would create three media committees: one representing newspapers, one representing magazines, and one composed of radio officials. A member of the Proprietary Association would serve with each group. The fourth—a top-level committee—would include representatives from each of the other three committees as well as an association member, and would coordinate and adopt suggestions which had been approved by the other groups and which would be applicable to the advertising of all groups.

Such an undertaking, Dr. Cullen said, would help to "build barriers against the activities of the 'gyp,' the 'fly-by-night,' and the concocter of cure-alls whose products not only endanger public health but also lessen confidence in packaged medicines and advertising in general."

James Hill, Jr., retiring president, commented on the vast quantities of supplies the industry furnished the government for the war effort, indicating the proprietary medicine industry's growing stature as an industry. He said that there were virtually no rejections because of failure to meet government specifications. As to the national problems, Mr. Hill came to the conclusion, reluctantly, that the return to normal prices based on full production, and the elimination of the black market require abolishment of the OPA except for rent control and for common sense control over

items about which there can be no substantial disagreement. Mr. Hill commented on the strike situation with the observation that the public will not long countenance action which, in the belief of the great majority of people is prejudicial to the general welfare such as some of the major strikes of recent months.

Dr. Paul B. Dunbar, Commissioner of Foods and Drugs. said that manufacturers are coming to realize that worthless nostrums have no place in modern medicine. He cautioned that in preparing the labels of drug products sold to the laity the limited medical knowledge of the readers of these labels must be kept continually in mind, and he stressed that drug manufacturers are obligated to tell the truth and the whole truth about their products.

James F. Hoge, general counsel for the association, stated that: "Never before has it been as vital as it is now to preserve the competitive system."

"Reactionary trends visible everywhere lead away from it. They are described by their partisans as liberal and progressive. But there is nothing liberal and progressive about concentration of power and exhaltation of government. The real liberalism is toward enlarged range for the exercise of man's competitive impulses."

Pointing out that the Reece Bill would permit federal courts to review FTC decisions according to the weight of evidence, and comparing FTC trials with "an inquisition," Mr. Hoge said, "so-called administrative law has reached out to embrace judicial functions and to barricade itself against effective judicial review." Mr. Hoge also supported the Lanham trade-mark bill and the McCarran bill on administrative procedure.

Thomas W. Delahanty, associate chief, Chemicals and Drugs Division, U. S. Commerce Department's Office of International Trade, said that "there is every indication that U. S. drug exports could soar to $200,000,000 by 1947." Exports are now running at about $116 million, almost a seven-fold increase over 1938 exports, he said. Recalling prewar days when "in some countries our sales were less than would be made annually to the average drug store in this country," Mr. Delahanty stated that foreign sales in American household remedies rose from $8 million in 1938 to about $28 million in 1945, prescription pharmaceuticals making up the balance of last year's total of $116 million total. The biggest handicap to expansion of these totals is a deplorable shortage of experienced foreign traders. While not questioning the superiority of our products, our plant capacity or our eagerness to assist, Mr. Delahanty stressed the need for capable sales organizations and "investment confidence" in foreign markets. Warning that "only the soundly financed, qualified specialist can hope to succeed, Mr. Delahanty said, "I know of no business in which you can sell yourself into bankruptcy faster than in exporting." Half of the drug exports in 1945 went to North and South America, while sales to Europe, Asia, Africa, and Oceania during the same year were on the average 25 times as great as in 1938.

Francis Chilson, Industrial Consultant and Production Editor of the DRUG AND COSMETIC INDUSTRY, proposed that the industry award a yearly "Oscar" to promote what he termed "impossibly high standards of plant sanitation in the industry." "The drug manufacturers must lead all others," he said, "we must set impossibly high standards and reach them. And while I feel that the industry is already anxious to do so, the establishment of an annual award would give further incentive and a means of public recognition. A Committee of Inspection created by the industry could visit all plants at irregular intervals and report their findings to the association."

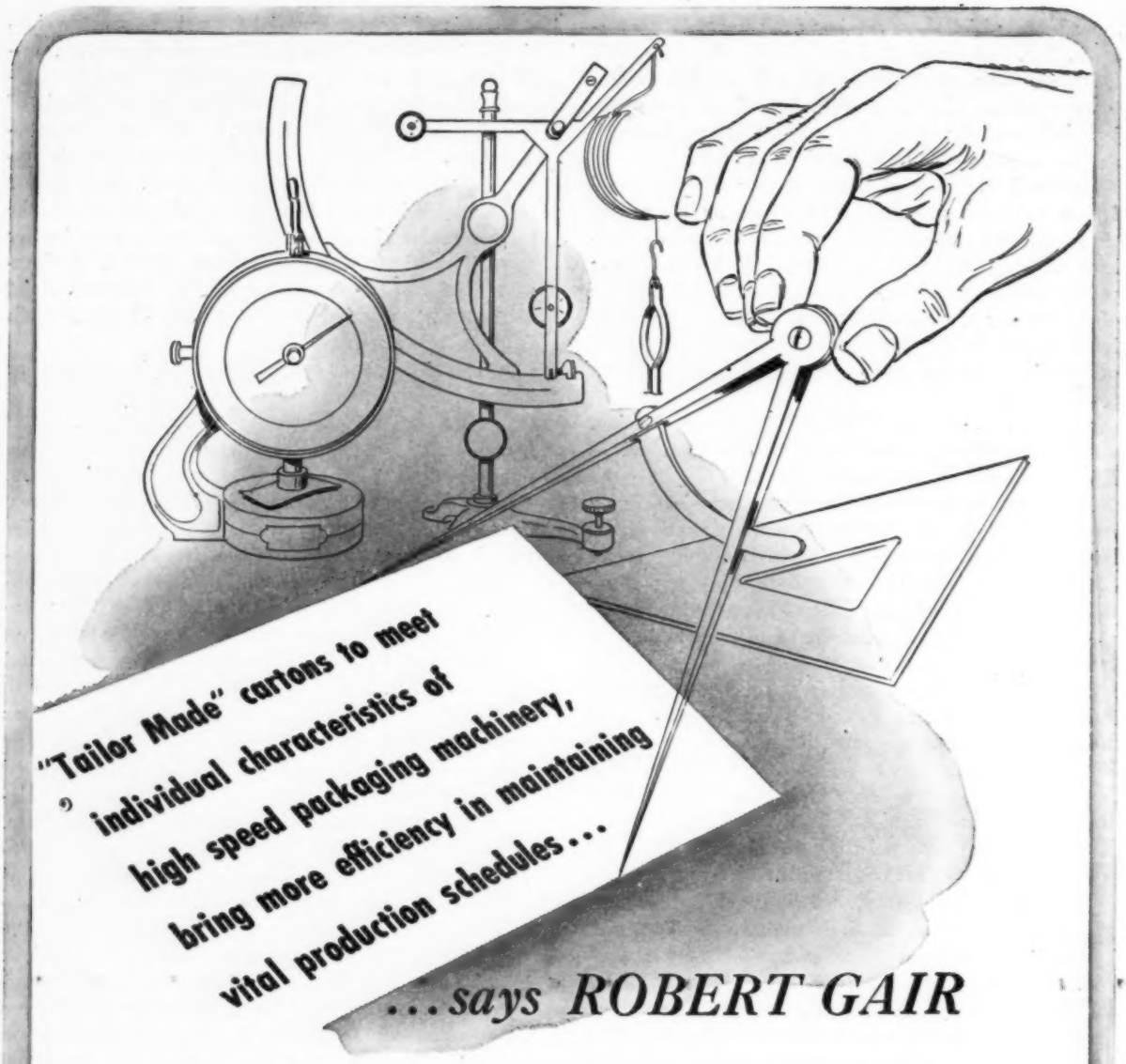
At least 5 to 10 per cent of the people in this country harbor amebiasis, a disease known in its acute form as amoebic dysentery, according to Louis M. Roeg, of Merck & Co., who said that the carriers are a genuine public health menace, especially among food handlers. While there are no new drugs for the disease, new uses for old drugs have developed. "The drugs used for treatment of amebiasis are emetine hydrochloride, subcutaneously or intramuscularly, and bismuth subcanbonate or bismuth subnitrate orally. At the same time, there is administered one or more of the following: carbarsone USP, iodochlorohydroxyquinoline, and chiniofon USP. Acetarsone has also been used with emetine, the emetine to control the acute symptoms and the acetarsone to destroy the amoebae."

When penicillin is taken orally without being buffered against the stomach acids, it can be practically destroyed in 20 to 30 minutes, according to I. W. Grote, of the Chattanooga Medicine Co. "A number of articles have recently appeared," said Grote, "suggesting that buffering of orally administered penicillin is unnecessary since the patients are instructed to take the penicillin on a fasting stomach when there would be little or no gastric juice present to endanager it. However, it does seem likely that in a number of patients there would, on occasions, exist a pool of gastric juice, especially in those who are subjected to penicillin therapy over long periods without the immediate supervision of food intake by a doctor."

Relief from the "light, unpleasant cases of food poisoning" which have been prevalent in recent years was forecast by Dr. E. C. Larsen of the J. T. Baker Chemical Co. Contamination of utensils, a frequent cause of poisoning, can now be controlled through the germicidal properties of the quaternary ammonium compounds which are "extremely poisonous to bacteria, but non-poisonous to human beings." They are surface active materials of the cationic detergent type, and some of them possess outstanding germicidal properties. They are finding widespread use in surgery as wound disinfectants, and in industrial sanitation as applied in dairies, restaurants, canning factories, and other food establishments.

Dr. G. F. Reddish, director of Bacteriological Research, Lambert Pharmacal Co., said that present methods of testing antiseptics have been worked out to

(Continued on page 883)


"Tailor Made" cartons to meet individual characteristics of high speed packaging machinery, bring more efficiency in maintaining vital production schedules...
...says ROBERT GAIR

Each type of high speed packaging machinery has a "personality" of its own... a characteristic that demands the uniform precision of a "tailor made" carton... just the kind of distinctive "tailor made" cartons that embody the experience, the "know how" and the infinite care of the Robert Gair organization.

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Paperboard • Folding Cartons • Shipping Containers

Packaging and Selling

Milwaukee Consumer Analysis

Some very interesting trends in purchasing habits for drugs and cosmetics can be found in the "1946 Consumer Analysis" of the greater Milwaukee market compiled by the Milwaukee Journal.

This survey has been compiled for a number of years and has the advantage of offering comparative data on the same questions, is recognized as one of the authoritative surveys by consumer publications. Nineteen Hundred and forty-six showed an increase of consumer purchasing for drugs in independent drug stores. This trend has been taking place over several years and in the last year reached 69.8% drug purchases in the Milwaukee area in independent drug stores. Chain drug stores on the other hand have been showing a declining ratio over the years and in 1946 had 20.3% family purchasing for these products. Department stores secured 9% of the purchases a slight annual increase over several years.

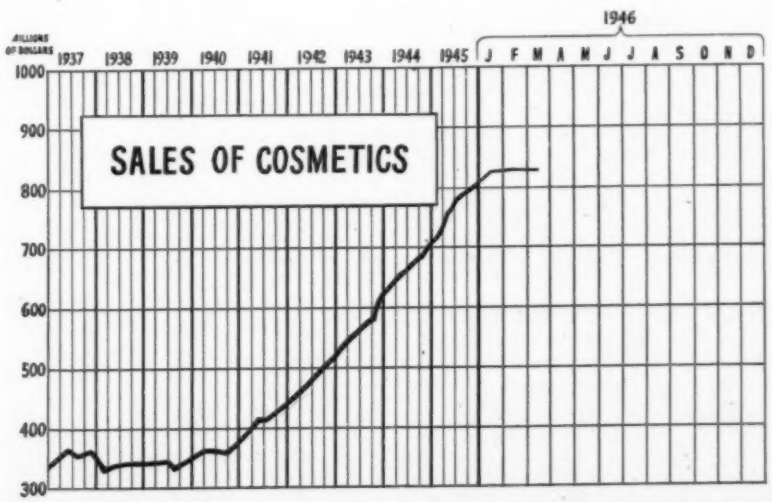
For cosmetic and toilet preparations on the other hand, there has been annually increasing favor shown to department stores with 1946 showing 53.3% on purchases for these products in department stores. Both chain and independent drug stores have been losing ground in cosmetic sales, the independent securing 19.8% and the chain 9.6% of purchasers for 1946. Other outlets for cosmetic purchases were, variety stores, 8.3%; house to house sales, 7%; grocery stores, .2%; miscellaneous, 1.8%.

In cosmetics, income had some influence on the place of purchase. For instance, the family paying $50 or more rent, 60.1% purchase in department stores, 17.8% in independent drug stores, 8.7% in chain stores, compared to the lowest income group paying rent of less than $30, 44.1% purchase in department stores, 21.3% in independent drug stores and 11.5% in chain drug stores. Housewives only were included in this survey which showed the following percentage of cosmetic users for various products: Nail Polish, 65.7, 85; Deodorants, 79, 152; Face Creams, 78.7, 213; Face Powders, 97.3, 176; Lipsticks, 86.8, 160; Rouges, 82.8, 171; Hand Creams & Lotions, 85.1, 166; Liquid Shampoos, 74.1, 161; Home Permanent Wave Kits, 11.3, 23; Facial Tissues, 84.3, 57; Tooth Brushes, 99.2, 102; Tooth Pastes, 73.3, 50; Tooth Powders, 48.1, 59.

It is interesting to note a substantial increase in the purchase of tooth pastes accompanied by a decline in tooth powder sales. For tooth paste the figures for the five consecutive years of 1942-1946 inclusive are 65%, 58.2%, 59.2%, 69.3%, 73.3% whereas, the percentages of these same five years beginning at 1942 for tooth powder run 53.1%, 56.6% 55.4%, 49.4%, 48.1%.

Shaving cream buyers are divided as follows: Shaving Cream 37.5, 47; Brushless Shaving Cream 27.6, 44.

These five years show an increasing percentage favoring brushless shaving creams. The increase during these years jumping from 22.1% to 27.6%. On the other hand regular shaving cream that is the soap base, there has been a decline in 1942 from 37.9 to 37.5.



Retail sales of cosmetics for the twelve months ended with March 1946 totaled $828,388,000. This compares with $829,454,000 for the twelve months ended with February 1946, and with $733,900,000 for the twelve months ended with March 1945.

Newspaper Advertising in 1945

A compilation of national advertising in newspapers in 1945 by Printers' Ink indicates that cosmetic and drug advertisers spent a total of $19,435,821 in that medium. This was divided as follows: cosmetics $11,091,196 and drugs $8,344,625.

In Five Largest

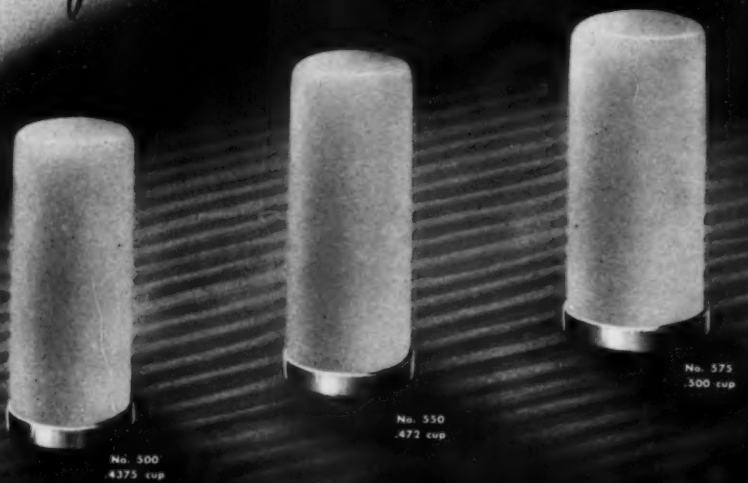
Speaking of the relative sizes of cosmetic companies as we were only last month, Martin Revson, executive assistant to the president and sales director of Revlon Products Corp., is authority for the statement that his company is one of the five largest manufacturers of cosmetics. He attributed this position to faithful adherence to the principle of new shades of matching lipstick, powder, and nail polish, backed by an aggressive advertising program.

Add Cosmetic Surveys

A summary of the recent survey conducted by Fawcett Publications in regard to the usage of cosmetics by its readers, shows that in the use of make-up base the most popular is Max Factor preferred by 23 per cent, with Jergens next 12 per cent, Ponds product third with 11 per cent, Woodbury's fourth used by 8 per cent. Drug stores led in place of purchase being patronized by 53 per cent, department stores doing 35 per cent.

Bright, polished, gleaming BRASS

SWIVEL LIPSTICK CONTAINERS



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Packaging Forum

By Josephine von Miklos

Two weeks' driving through ten of our very best states has left me a little breathless.

As you go through little towns whose names you forget as soon as you have passed them, out of old habit you slow up as you drive past the windows of stores—small department stores, chain stores, drug stores. You say to yourself, let's see what their drug and cosmetic displays are like and then, more often than not, you stop. For something has caught your eye which does not look like the old familiar clutter, the things piled high as though every inch must be full of merchandise, as though the store owner were desperately afraid he might forget some small item perhaps wanted. Sometimes you go inside, for a coke or cigarettes or a flashlight, or thread and needles, or just pretending there is something you want to buy, and every time you are again amazed and delighted. You arrive at the unexpected conclusion that five years of war and worry and shortages have in some indefinable but completely intelligible way, changed the taste of the great American public and its translators, the store keeper and display man. There is much less clutter, in windows and on counters; the drug and cosmetic shelves look neat and clean and well organized; each item, or line of items seems to be treated with understanding and a certain new respect for its individuality; and somehow you can't escape the feeling, here is a new kind of desire to do more than just sell a lot of merchandise.

We know, no matter how well we clothe our ideas in the mantle of benevolence and generosity and whatever the lovely terms we use, we are in business to sell goods. Beyond that we can sell goods nicely, so it is fun to sell, and, more important, fun to buy, and come back and buy some more. The small stores in the small towns seem to know that, and they seem to know it better now than they ever knew it before. Perhaps in times when all of life is difficult and full of sadness and the big issues confused, the small things take on greater importance. Perhaps, they feel, half consciously, and half just because they themselves are so tired of the ugliness of war and desperation, that a small lift in some small way, does our souls good. It doesn't look, in these small towns, as though there were just a new drive on for selling more goods. It does look as though even in the smallest hamlets, people knew that taste makes life easier to bear. They seem to take beauty more seriously; they work at it harder; they have learned that station in life and size of pocketbook have no real and ultimate bearing on the desire to have and hold the charming niceties which in a few tiny ways take the edge off the hardness of our days.

You no longer drive through the small towns of America, and rush through, glad to leave them behind, because most of their streets and windows are so ugly. The small towns of America are growing up. The small drug and chainstores are concerned with beauty just as much as the elegant places on Fifth Avenue. They have something on Fifth Avenue too. They seem much more closely concerned with what their people like to see and have, promotion or not. Small towns in America may not be chic or very sophisticated. But they seem to know, at long last, that good taste is important.

Parfums Bizet "Symphony of Fragrance" is built around a musical background, both in packaging and in the names of the fragrances offered.

In face powder, Max Factor again led being used by 14 per cent, Coty second with 13 per cent, Woodbury also with 13 per cent. Lady Esther was third with 8 per cent. Forty-two per cent of the purchases were made in drug stores as against 27 per cent in department stores.

Lipstick found Revlon the favorite being used by 15 per cent, Max Factor second with 9 per cent, Tangee next with 8 per cent. The drug store gets most of the business, some 39 per cent.

Of those using cream for cleansing, 20 per cent, were found to prefer Ponds. Lady Esther is used by 15 per cent and Woodbury by 14 per cent. Here again the drug store was first with 46 per cent of the business, 5 & 10 stores second getting 27 per cent of the business, department stores 21 per cent.

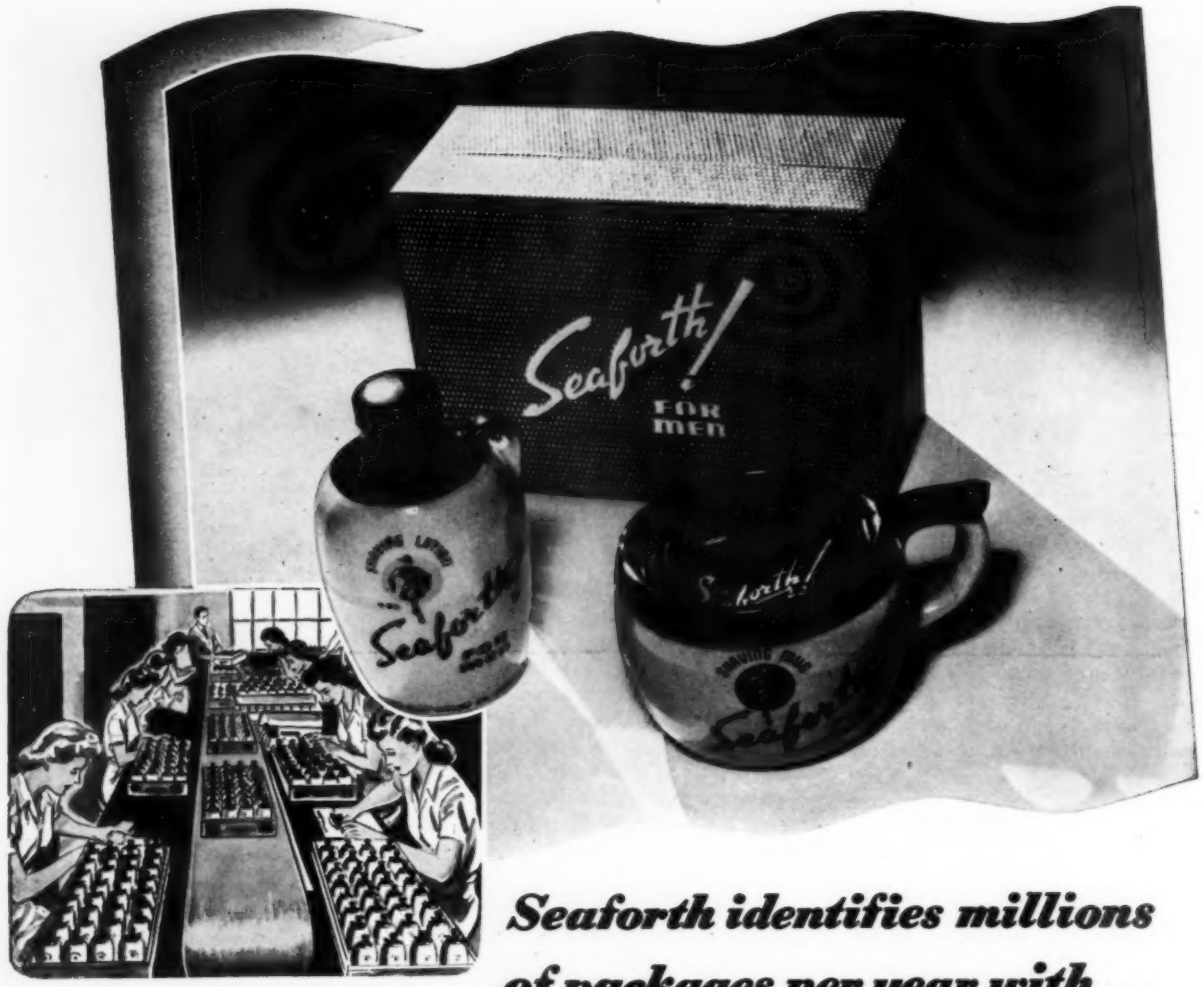
Revlon was preferred by 33 per cent when it came to nail polish. Cutex was second with 25 per cent, Dura-gloss third with 14 per cent, and Chen Yu fourth with 12 per cent. The 5 & 10 store was the place of purchase for 36 per cent, department stores for 28 per cent, drug stores 27 per cent.

Those using hand lotion were found to prefer Jergens, as 50 per cent used it. Hinds came next with 13 per cent and Trushay third with 10 per cent. Drug stores did 50 per cent of this business, 5 & 10 stores 29 per cent.

Sutton led in the bubble bath department some 16, per cent preferring their product. Foaming Bath was second with a following of 10 per cent, while Avon and Trejur vied for third each with 5 per cent. Gift shops were the most popular places of purchase for these items with 33 per cent, drug stores next with 31 per cent.

Evening in Paris was well in the lead as perfume choice as 34 per cent used

W. B. Associates, manufacturers of Softol cuticle set, announce the presentation of Softol nail conditioner, designed as an aid in preventing brittle, breaking, splitting nail conditions.



Seaforth identifies millions of packages per year with . . .

MEYERCORD DECALS

These famous, prize winning Seaforth packages achieve sparkling "eye-appeal" with colorful Meyercord Decal decorations and identification. According to the Alfred D. McKelvy Co., makers of the famous Seaforth grooming essentials, production lines are easily set up to handle thousands of applications of Meyercord Decals per hour. Decals can help sell your product too. They're washable, durable, acid and moisture resistant. Any design or colors can be reproduced for quick application on glass, crockery, wood, metal, plastic fabric, composition. They stay bright for the life of the product! Free technical service. Write for details to Dept. 14-6.

Send for new slide-rule type Meyercord Nameplate Selector to assist you in the selection of the right Decal for use as trademarks, instructions, patent data, etc., particularly on difficult surfaces. Write for one today!

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your products with
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The Cosmetic Trend

An important development within the cosmetic industry and of considerable interest to many of its smaller manufacturers is the renewed growth of the demand for cosmetics bought "for use" by beauty shops and hair specialists. While this market falls behind, of course, the substantially larger volume of the department store, drug and other similar retail trades it is, nevertheless considerable and supplies a large income to an increasing number of manufacturers who either distribute directly or sell with the aid of the many wholesale-houses serving the beauty shops.

The number of beauty shops which had declined during the war, often because of the larger earnings offered in war-industries, is now expanding again and numerous new establishments are opened, especially in the smaller places where there has been a dearth of them during the war.

The majority of beauty shops buy their cosmetic merchandise in bulk, filling both jars and bottles of creams and tonics from supplies in stock. However, some manufacturers supplying beauty shops have made continued efforts to convince their customers of the advantages of selling beauty preparations, as well as employing them professionally.

This tends to lead the beauty shop cosmetic business away from its special formula obsession and a larger number of brand manufacturers have been enabled to enter the field, supplying cosmetics for use as well as sale. At the same time many manufacturers who have sold and produced for beauty shop use exclusively are branching out. This practice is growing and a number of quite ambitious advertising campaigns of this type are planned.

Wherever this or similar methods were adopted the step from a purely beauty shop distribution to the regular cosmetic counters has generally followed not so long after. It was hastened during the war by the shortage of cosmetic merchandise which has given a more ready welcome to this type of merchandise than might have been the case otherwise. One of the principal difficulties in bridging the gap generally is how to reconcile customary retail price levels and sales practices with the generally higher profit expectations of the beauty trades. Another obstacle, preventing cosmetic manufacturers for the beauty trades to enter the wider market for cosmetics, is the disinclination of some of their very best customers to handle and use articles that are not fully controlled by them or, at least, not confined to beauty shops.

The result of the entry of a manufacturer of beauty-shop-sold preparations into the regular cosmetic sales field, with its less limited opportunities, is that sometimes he starts to lose interest in his old customers and concentrates more heavily upon his new market. This has made for a higher than usual turnover among the manufacturers serving the beauty trades which, in turn, makes them a rather promising market for budding manufacturers with restricted capital.

That the market is limited should not be a hindrance, it may be an advantage. As a matter of fact, some of our biggest cosmetic sellers and top names of the cosmetic industry have grown along the beauty shop route.

Welch Award

The Chen Yu Cloud Silk Cake Make-up was awarded the Charles S. Welch Memorial Award of the Toilet Goods Association for packaging. The Cloud Silk container is a square design of gleaming black plastic. The center section enclosing the make-up is Chinese scarlet, lettered in gold. The presentation was made to Lewis J. Ruskin, president of Associated Products, Inc., by Paul Douglas, vice president of Bourjois, Inc., at the annual convention of the Toilet Goods Association, May 15.

Finishing Touch Kit

Helena Rubinstein has created a "Finishing Touch" kit for business girl readers of Charm magazine which introduced the idea in its June issue. The kit was created especially for the needs of business girls at the suggestion of this publication. Sales appeal of the kit which holds eight Helena Rubinstein beauty essentials, is directed to business girls, June brides and summer vacationists.

that brand. Coty was second with 16 per cent. Tabu third with 10 per cent. Gift shops led in place of purchase, 44 per cent buying in them. Drug stores did 33 per cent of the business. Department stores 31 per cent.

Colognes showed Evening in Paris again the leader, some 15 per cent using it, Shulton was second with 11 per cent. Lentheric third with 9 per cent. Drug stores and gift shops each with 34 per cent. Department stores 31 per cent.

Shampoos, found Drene used by 26 per cent, Halo second used by 11 per cent, Fitch by 10 per cent, Castile and Kreml fourth with 7 per cent each. Drug stores led in place of purchase doing 59 per cent of the business.

Leg make-up was used occasionally by 40 per cent of those questioned. Some 19 per cent preferred Arden. Miner's was second being used by 15 per cent, Max Factor and Rubinstein third with 6 per cent each.

Do You Know?

According to Monsanto Magazine the average woman consumes her height in lipstick every five years.

Good Housekeeping

A survey conducted by Good Housekeeping, on the personal grooming habits of its readers brought forth some interesting sidelights on consumer reaction to cosmetic products.

Face soap is used by 95 per cent, while 5 per cent clean the face with cleansing cream only, and 73 per cent use cleansing cream. Large sizes of cleansing creams are purchased by 57 per cent.

Some kind of make-up base or powder foundation is used by 70 per cent. Most of them use it all the time—not just for special occasions. Older women—over 35 and 45 are almost as likely to use the new make-ups as those under 25, with the exception of cake make-up. The readers in the survey were quick to use new types—the tinted, cover up cake, cream, and powder lotion—over 50 per cent are using them.

It is interesting to note that 93 per cent of those interviewed use face powder, some 5.4 per cent do not use face powder. About 4 per cent used to use face powder, but have stopped, and less than half of these stopped because they now use cake make-up. It is evident that a good proportion of them may own two boxes of powder, because more than 8 per cent use a different shade in the evening, and 38 per cent use a different shade in the summer. The survey indicates that shade is now the most important factor in choosing face powder. Texture used to be.

Lipstick was found to be used by 90 per cent of the respondents, 66 per cent pay one dollar or more for a lipstick, with 79 per cent owning one or more lipsticks. Clear, true red is the favorite shade.

Although more than 91 per cent use a deodorant, 45 per cent wear dress shields, because they either use a product that does not check perspiration or one that does not check completely. Cream deodorant is the favorite type. Most important feature is checks perspiration—56 per cent, but 21 per cent find that the anti-perspirant they are now using keeps underarms dry for less than a day. Chief complaint is "does not keep underarms dry."

About 64 per cent of the respondents washed their hair always or usually. The higher the income, the less likely a woman is to do her own hair at home. Fifty-one per cent shampoo once a week, 65 per cent use a special shampoo only, and another 25 per cent sometimes use special shampoo rather than soap. Majority buy large size. In washing children's hair, women are more likely to use soap, instead of special shampoo, than when they wash their own hair.

A high percentage use perfume, 71 per cent. Lower percentages use cologne and toilet water. Over 83 per cent don't care whether perfume is imported or domestic so long as the fragrance is good.

There is a growing use of hand cream —35 per cent use it as opposed to 75 per cent of hand lotion. About 14 per cent use both. Large size is most popular, bought by 53 per cent, 31 per cent use it more often than three times a day, generally applying it after hands have been wet. Six per cent apply it before washing dishes, etc. Quite a number use it on face, elbows, legs, feet.

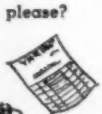
To Our Friends at

From Seaforth

Our store door's open
The shoppers come
They look a lot
And . . . they buy some.
Why not buy more?
The answer's there
Our stock's depleted
Our shelves are bare.

We rant, we rave
We tear our hair
Search order files
In deep despair.
Nothing to advertise
Nothing to show
To manage a store
Is the worst life we know.

Our resources we write
We phone, we wire
A big shipment today
Is our desire.
Won't you help us, please?
Fill that order now
Get any part of it
To us somehow.



Yaring's
AUSTIN, TEXAS

From the Seaforth Folks

To Our Friends at

We've never heard
A tale more pathetic
Than the one described
In your plea so poetic.
BUT!...bang those cymbals!
Pound those drums!
Dust off your shelves!
Here Seaforth comes!

Our stock was low, too,
But we buzzed like a hive,
And we got off your shipment
On March twenty-five.
For whether it breaks us,
Or whether it wrecks us,
We're getting that Seaforth
To Austin, Texas!

We hope your troubles
Are practically over
And that Seaforth puts you
Back in the clover.
In the meantime we'll go on
Straining our larynx
In praise of our good
Old pals at Yaring's!

Alfred D. McKelvy Company
Makers of Seaforth

Hand-blown crystal glass vials

Individually executed by American craftsmen, these hand-blown crystal glass perfume vials by Glass Industries emphasize the impression of costliness by their delicacy and small size, ranging from a few drops capacity to one ounce. Note decorative possibilities of stopper-applicators. Items shown are available now.

We also feature a complete line of distinctive Miniature Bottles in a wide selection of shapes and sizes — hand decorated or plain.

ALL MINIATURES AND VIALS FEATURE G.I.I. PATENTED, EXCLUSIVE, LEAKPROOF, AIR-TIGHT STOPPER-APPLICATOR

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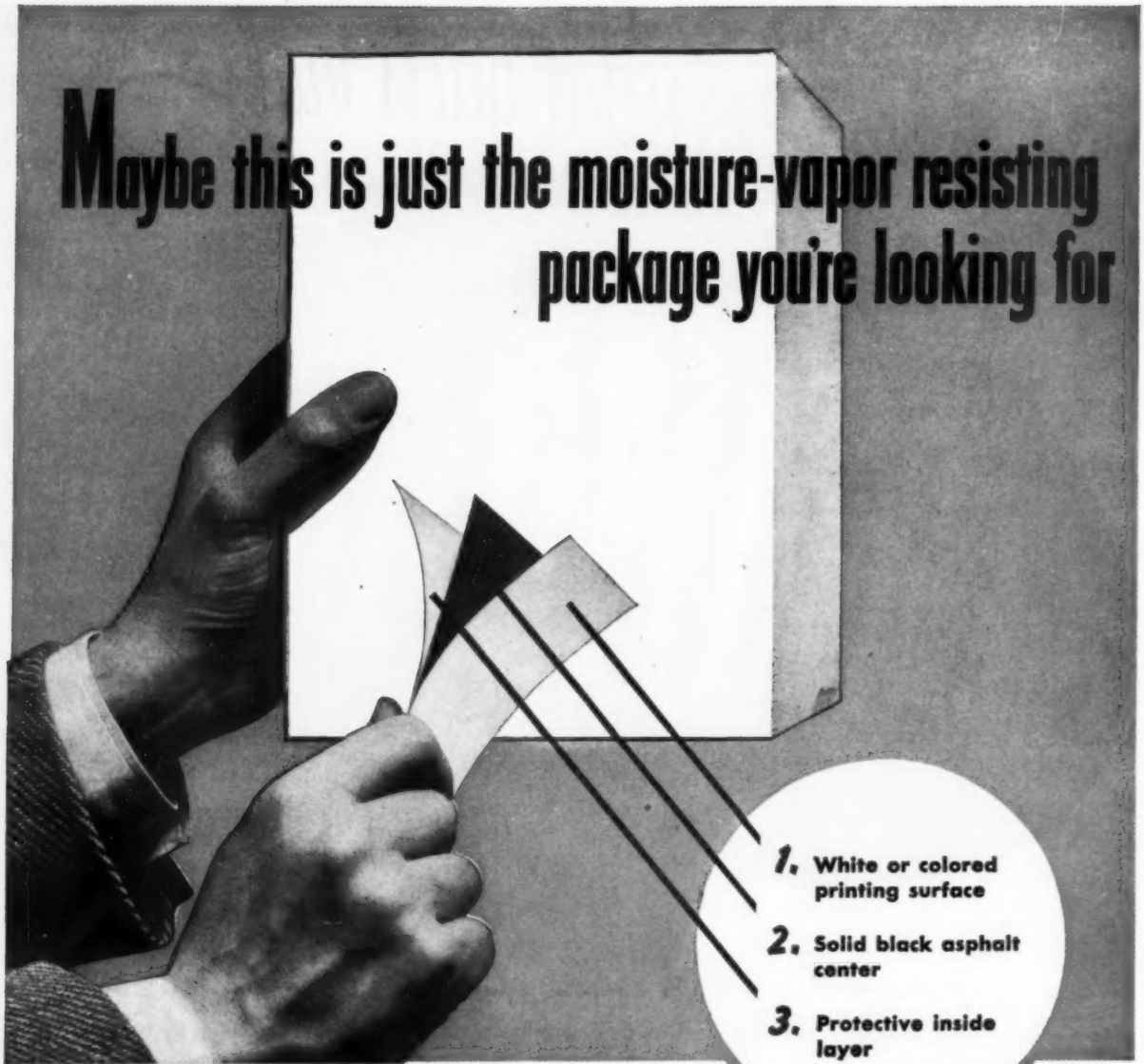
Maybe this is just the moisture-vapor resisting package you're looking for
1. White or colored printing surface
2. Solid black asphalt center
3. Protective inside layer

IT'S MADE OF HYDROTITE . . . A TIME-PROVED, ECONOMICAL CARTON BOARD. AND IT'S AVAILABLE!

HERE AT GARDNER-RICHARDSON we have a broad experience in the manufacture of many types of impregnated and laminated carton boards which offer moisture-vapor protection. Of this line of boards, the oldest and most economical is *Hydrotite.*

Hydrotite is a unique board. It has a three-layer construction . . . the center layer being asphalt which retards to a high degree both the *entrance* of moisture and the *escape* of moisture. Thus, it helps guard against weight loss . . . and moisture absorption. You'll also find that *Hydrotite* keeps out harmful light rays and is resistant to the invasion of many types of bugs.

If you have a product which requires an effective (but not the very highest degree of) moisture-vapor protection, *Hydrotite* may be the answer to your needs, or you may even find that a *Hydrotite* carton will eliminate the needless expense of using an outer wrap.

It will pay you to find out! Ask us to make up some sample Hydrotite cartons. Test them in your laboratory and in your machines. Then, you be the judge. Write today. Your request will not obligate you in any way.

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Manufacturers of Folding Cartons and Boxboard • Middletown, Ohio

Sales Representatives in Principal Cities: PHILADELPHIA • CLEVELAND • CHICAGO • ST. LOUIS • NEW YORK • BOSTON • PITTSBURGH • DETROIT

Twincote is a colorless liquid offered by Chen Yu which serves as a foundation and also as a top coat

Twincote

Chen Yu has introduced "Twincote," a colorless liquid which is said to have complete compatibility with nail lacquer—makes it flow on smoother, last longer. Besides being a foundation, Twincote is suggested as a brilliantly lustrous, chip-resistant top coat that cuts drying time. For the manicure of the future, Chen Yu will offer just two products for nail lacquer loveliness—Twincote as a base, two applications of lacquer and Twincote for faster sealing. Twincote is priced at 60 cents in the familiar Chen Yu bottle with bright red cap and label. Chen Yu plans to back Twincote with an extensive magazine and newspaper advertising campaign.

Marcel Lewis offers Polonaise cologne packaged in silver with red, chartreuse and black.

Pond's has added two new products to its line—Dreamflower talc and Dreamflower dusting powder—in newly-designed matching packages.

Pond's New Products

Pond's has introduced two new products to its line of beauty preparations—Dreamflower Talc and Dreamflower Dusting Powder in newly-designed matching packages. Both powders are Dreamflower scented, light, sweet and delicate. Equally attractive for boudoir or bath, the matching packages are patterned in a pastel-flowered background banded in pale blue-green and lettered in gold. As a special introductory offer to the drug trade, Pond's combines both talc and dusting powder in a handy merchandising pack which includes attractive display price collars for each product. This combination offer, together with free point-of-sales display material, makes possible a minimum assortment of merchandise sufficient for sales-promotion purposes.

Parfums D'Orsay presents its Belle de Jour in a new version—Belle de Jour eau de toilette—packaged in sleek shining black.

Le Cert Perfumes presents two perfumes "Secretly Yours" and "Dreams Come True," handsomely packaged in plastic containers.

Keyed to the Seasons

The House for Men, Inc., has hit upon a new wrinkle in men's after-shave lotions. This outfit has keyed its lotions for skin comfort during seasonal changes. This is the way The House for Men reasons: "Skin in summer is likely to be moist, the pores open and perspiring more freely, thus causing an oily condition and requiring a lotion with more astringent and cooling properties. In winter, harsh skin-torturing winds leave the skin dry, taut and tender, demanding a soothing, lubricating type of lotion." The House for Men meets these conditions with "His" Deluxe lotion for the warm weather months and "His" Special lotion for colder weather. The Special, being a milder lotion, is also suggested for the youthful shaver whose skin hasn't yet become toughened by repeated shaving.

Primrose House has repackaged its Chiffon face powder. The box is in muted yellow with the Chiffon motif in a bolder yellow.

IS IT A SURE STOPPER OR A DULL DISPLAY?

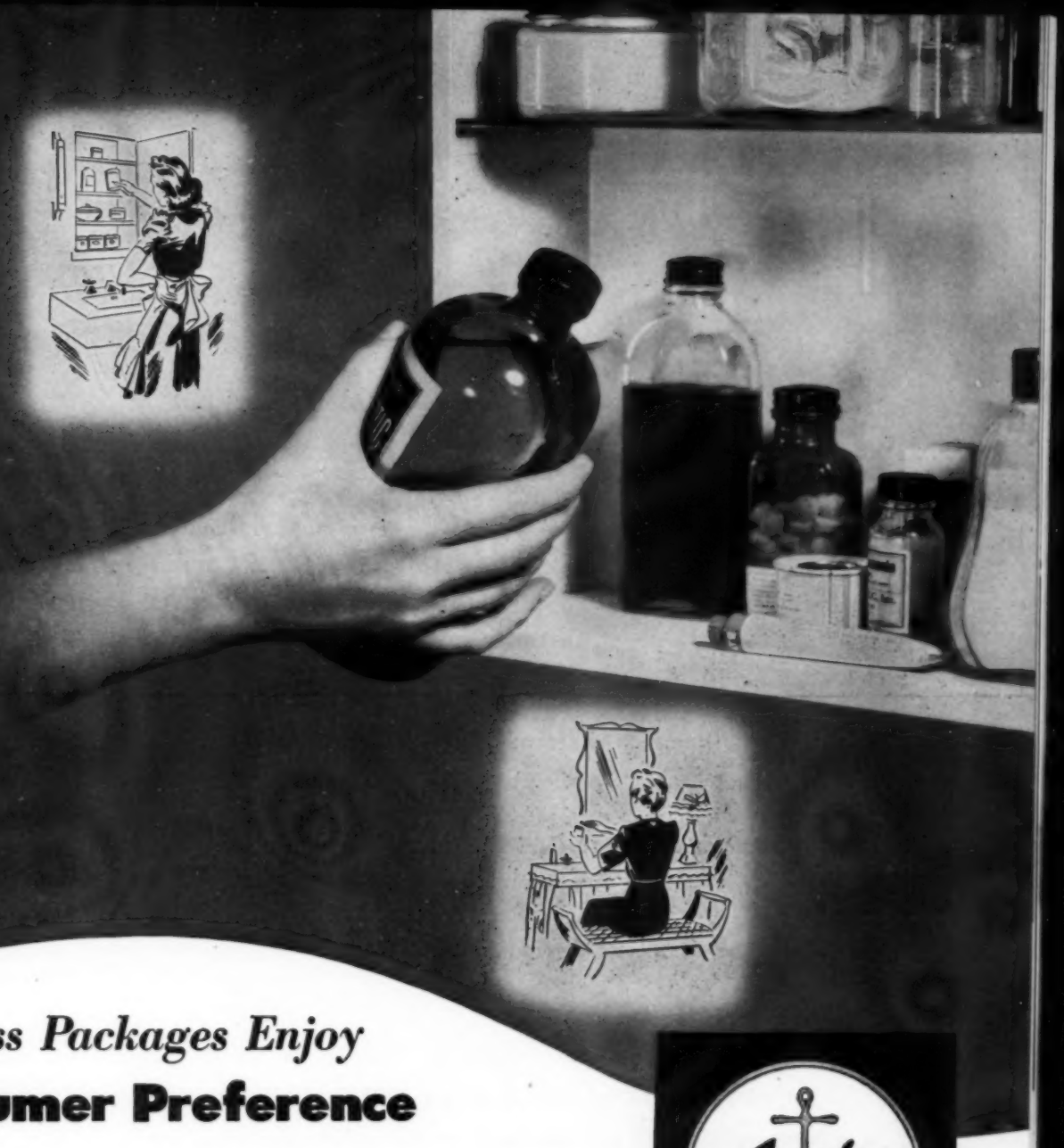
Every carton user wants his box designs to look their best. This means the smooth, bright uniformity that comes from a fine coated board like RIDGELO. Cartons with appeal develop easily from the combination of a good folding box maker and a clay coated finish.

Many leaders in drugs, cosmetics, toilet goods, confections, and specialty foods standardize on RIDGELO. It may well belong in your packaging program. Ask to see proofs on this fine quality boxboard and compare!

Ridgelo
CLAY COATED
BOXBOARDS

**MADE AT RIDGEFIELD, N. J.,
BY LOWE PAPER COMPANY**

Representatives
H. B. Royce, Detroit • Norman A. Buist, Los Angeles • A. E. Kellogg, St. Louis • Philip Rudolph & Sons, Inc., Philadelphia



Glass Packages Enjoy

Consumer Preference

THE lady of the house is mighty selective about the drugs, medicinals and household chemicals she puts on her shelf, because they guard the health of her entire family. The Anchorglass package gives her the best opportunity to see what she's buying. It invites product inspection, recognition and acceptance. It lends the appearance of quality to your products, and is a real aid in helping to put your products on her shelf.

But that's not all. Anchorglass Containers are not affected by the chemical action of most drugs and chemicals. They prevent evaporation or absorption of moisture and preserve all the original strength, curative or other qualities peculiar to your product. They provide easy accessibility to contents, can be resealed easily, and provide efficient protection until the contents are entirely used. And they show when the supply is low and tell the housewife it's time to re-order.

Anchor
CONTAINERS and CAPS

PRODUCTS OF
ANCHOR HOCKING GLASS
CORPORATION
LANCASTER, OHIO

Quality---

what does that mean?

When we talk about the "quality" of SWINDELL bottles, the word means different things to different people. To some, it means beauty of design that lends glamor and lustre to your product.

To some, it means sturdiness and durability that insures you against undue shipping losses.

To some, it means dependability in delivery of uniformly good looking products.

But here's the point — whatever "quality in bottles" means to you, SWINDELL's hundred year tradition of skill makes certain that you get it here—in stock or private mould bottles, machine or hand made.

SWINDELL BROTHERS, Inc.

200 FIFTH AVE., NEW YORK ★ BALTIMORE 30, MARYLAND ★ ROBERTO ORTIZ • HAVANA, CUBA

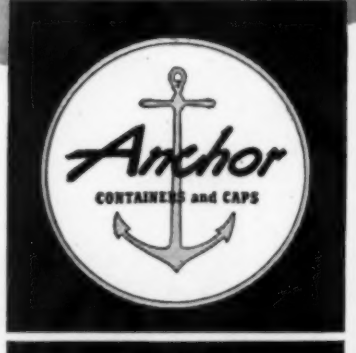
Swindell

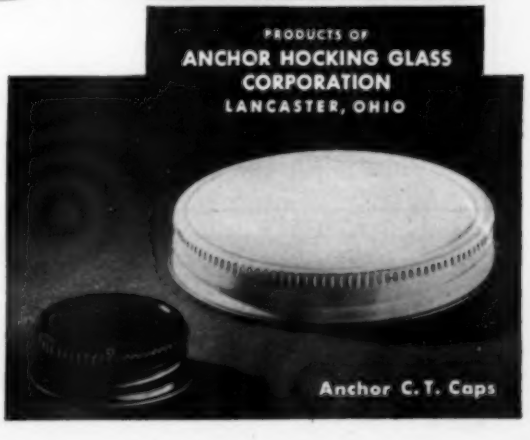
Removal is really easy now because . . .

The Anchor C. T. Cap Has a broadly rounded thread!

THE Anchor C. T. Cap has a broadly rounded, deeper thread which allows greater limits of tolerance and permits the cap to spin on and off easily. Improved methods of manufacture have made possible the use of this design. Gripping the underside of the glass thread as it does, it eliminates friction and makes the Anchor C. T. Cap really easy for the housewife to open and securely reseal.

The Anchor C. T. is a handsome cap, too. The closely rolled wire edge, the clean narrow band of positive knurling, the deep, smoothly rounded thread—all combine to give this cap a graceful but sturdy and business-like appearance.





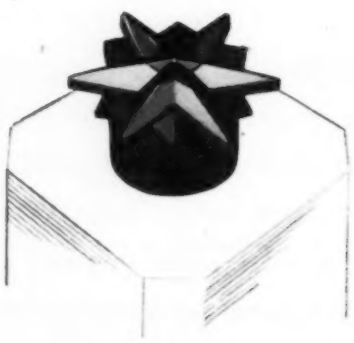
Sales-building design suggestions for your private mold caps

PREPARE YOUR PACKAGE NOW for tomorrow's battle for customers. Give it the business-building style, distinction, and beauty of an Armstrong's Artmold Cap. For design suggestions, send sample or drawing of your package to Armstrong Cork Co., Glass and Closure Div., 3806 Prince St., Lancaster, Pa.

DRAMATIZE your package, give it the extra style and distinction that sell "luxury trade" items, with a tall, graceful, monogrammed Artmold Cap.

KNURLED EDGE speeds capping and uncapping, adds distinctive beauty, too. Use Artmold Caps to make your package easier to handle, give it eye-appeal.

SMART, MODERN Artmold Cap designs like this are being used in increasing numbers to lend a distinctive touch of style to packages designed for men.



DECORATIVE STAR DESIGN is one of an unlimited number of eye-catching effects available in Artmold Caps and used to build product identification, boost sales.

ARMSTRONG'S *Artmold* CAPS
PLASTIC

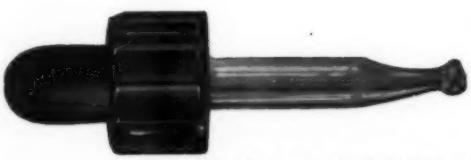
"PEACE OF MIND"

Goes With

New Perfection DROPPING PARTS

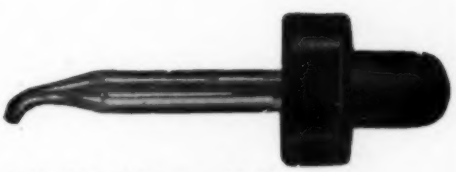
BECAUSE . . . .

Perfection Glass Goods
Really Are
Glass Goods of the Better Kind



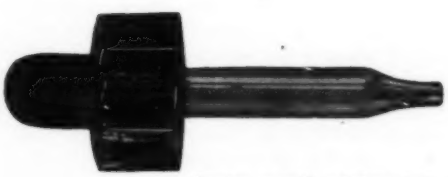
Non-rolling, extra depth, Bakelite Cap with thick flange rubber part: Saftee ball glass.

1



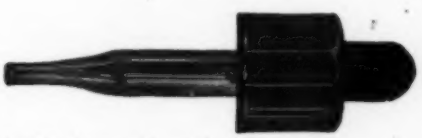
Double shell metal cap; special thin flange rubber part; special bent glass.

2



Regular or acid resisting plastic cap; regular rubber part in various colors; semi-blunt glass.

3



Fancy colored beetle cap; midget rubber part; regular straight glass.

5

Single shell metal cap; thin flange, non-swelling Amekine synthetic rubber part, without strong odor; blunt glass.

4

Bottles can be supplied with the dropping parts if so desired. They come in Amber, Blue, Green and Clear Glass in 2-cc, ⅛, ¼, ½, 1, and 2 ounce sizes.

Write for Samples and Prices

Perfection Glass Goods Really Are Glass Goods of the Better Kind

PENNSYLVANIA GLASS PRODUCTS CO.

"GLASS GOODS OF THE BETTER KIND"

428-432 NORTH CRAIG STREET . . . PITTSBURGH, PA., U.S.A.

CONTINENTAL SERVES
BEHIND THE SCENES . . .
. . . BEHIND THE LABELS OF
AMERICA'S FINEST PRODUCTS
EACH CONTAINER that comes off Continental's production lines is a finished package. It is the result of co-ordinated skill and production . . . all the way down the line.
Continental research plays a vital role too. From the flat plate, enamels, compounds, and solders, to the handling of the completed container . . . every step is planned and pre-checked by expert techniciana. Thus, we know in advance what to expect of each container. That's the reason why so many manufacturers look to Continental for "the best in quality and the best in service."
CONTINENTAL
CAN COMPANY
100 East 42nd Street, New York 17, N. Y.

THE SIMPLE VIRTUES

FOR over three centuries, superior watches have been produced in Switzerland. The first Swiss watches were made by individuals in their homes. In later years they have been produced in factories by carefully controlled methods.

The exceptional quality of Swiss watches has always resulted from the simple virtues . . . honest work well done, with painstaking attention to detail . . . and refusal to compromise with quality.

These same virtues are factors which have always played an important part in the manufacture of Carr-Lowrey glass containers. Our aim is not to make the most . . . but the very best glass containers available to modern packagers. Strict adherence to this idea for more than half a century has won for us the confidence of a majority of discriminating buyers.

CARR-LOWREY GLASS CO.

Factory and Main Office: BALTIMORE, MD. • *New York Office:* 500 FIFTH AVE. • *Chicago Office:* 1502 MERCHANDISE MART

O. K.

Illustration: On John C. Slowey's left is Marion Colby, lovely singing star now appearing with Milton Berle at Nicky Blair's Carnival Club, Hotel Capitol, N. Y.

—Take 1/2 Apiece!

"THAT'S THE *best* solution," sighs Mr. Slowey as he tries to ease up the 'demand-exceeds-supply' situation. (Mr. S feels like the last man in the world, suggested by the fantasy of having himself torn in half.)

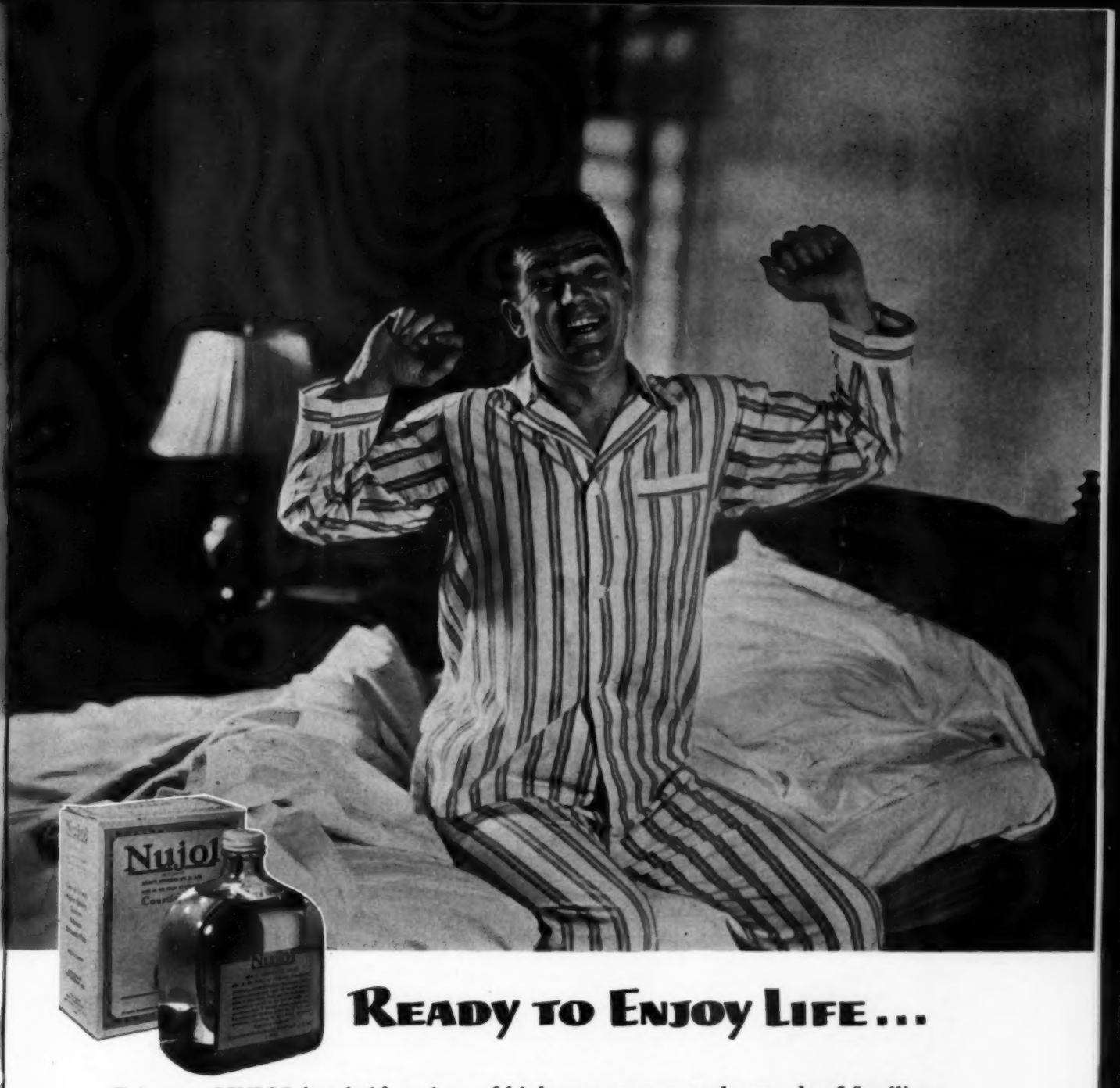
Now fantasy yields to reality like this:

SAYS MR. SLOWEY: "A word to all you folks whose orders for containers and caps are on my desk: I'll do the wisest thing, since I owe you a great debt. I'll share my stock fairly, as fairly as possible, with you."

"NOW," resumes Mr. Slowey, "You guys with useless piles of containers and caps: Lend a hand — *get some good cash* while easing up the general 'bottleneck'. Sell your useless (useless to *you!*) accumulations of bottles, containers and caps, ANY quantity, size, shape, color or form . . . sell it to me. Do it NOW. Then I'll be in a better position to supply *those who most need your useless stockpiles* right now! It doesn't matter whether they're drug, food, chemical, cosmetic or what-have-you containers and caps. Be a pal and contact me now. I'll quote you a good price!"

glass container & cap outlet co.
876 Broadway
New York 3, N. Y.

phone: ALgonquin 4-6066



READY TO ENJOY LIFE...

For years NUJOL has held a place of high esteem among thousands of families all over the country. ◆ Nujol, a product of Stanco, Inc., Bayway, Elizabeth, N. J., is another on the long list of products dependably sealed with Crown Screw Caps. The patented Deep Hook Thread—an exclusive feature of Crown Screw Caps—serves a double purpose. It provides greater sealing pressure with the same amount of application force—yet it is easy to remove. Crown Cork & Seal Company, Baltimore 3, Maryland. *World's Largest Makers of Metal Closures.*

CROWN CLOSURES

FEATURED CHEMICALS in the PFIZER FAMILY

- Acetyl Tributyl Citrate
- Acetyl Triethyl Citrate
- Ammonium Oxalate
- Ascorbic Acid
- Bi-Cap Flour Enrichment Mixtures
- Bismuth Preparations
- Calcium Gluconate
- ✓ Citric Acid
- Citrate Esters
- Cream Tartar
- Fumaric Acid
- Gluconic Acid
- Glucono Delta Lactone
- Iron and Ammonium Citrates
- Iron and Ammonium Oxalate
- Iron Gluconate
- Iron Oxalate
- Itaconic Acid
- Niacin
- Niacinamide
- Oxalates
- Penicillin
- Potassium Iodide
- Potassium Oxalate
- Riboflavin
- Rochelle Salt
- Sodium Citrate
- Sodium Gluconate
- Tartaric Acid
- Thiamin
- Triethyl Citrate
- *—and many other chemicals*

no. 1 in a series:

CITRIC ACID

Whether it's to be used as a food, a beverage, a pharmaceutical or an industrial chemical, Pfizer citric acid is a "known quantity." It offers known *quality*, reflecting the many major advances contributed by its makers to its development.

Research at Chas. Pfizer & Co., Inc. has changed the commercial history of this versatile organic acid.

It has widened citric acid's industrial usefulness by reducing the cost of preparation and by developing domestic sugar as a raw material instead of foreign lemon and lime juice concentrates.

The same thoroughness which made possible these citric acid advances is now applied to the accurate control of the product in manufacture. The technical skill of a well-trained staff is combined with care consistently exercised in every operation. The result is a high degree of uniformity and purity that can be relied upon safely by citric acid buyers everywhere — and by users of each one of the more than a hundred Pfizer products.

Chas. Pfizer & Co., Inc., 81 Maiden Lane, New York 7, N. Y.; 444 West Grand Ave., Chicago 10, Ill.; 605 Third Street, San Francisco 7, Cal.

PFIZER

Manufacturing Chemists Since 1849

NEWS...

Luckman Named Lever President

Charles Luckman, widely known in the drug field as president of Pepsodent since 1943, has been elected president of Lever Brothers Co. In addition to heading the company's Pepsodent division,

CHARLES LUCKMAN

Mr. Luckman has since January been executive vice president of Lever Brothers.

Mr. Luckman, who was 37 years of age on May 16, will succeed Francis A. Countway on July 1. Mr. Countway is retiring after forty-eight years with the company, including thirty-three years as its head.

HENRY WOULFE

Henry F. Woulfe will succeed him as president of the company's Pepsodent Division, effective July 1. Previously Pepsodent's vice president and general manager, Mr. Woulfe has been a key member of the executive team which aided Mr. Luckman in developing Pepsodent.

A native of Chicago, Mr. Woulfe joined Pepsodent in 1927 as purchasing agent. In 1938, he took over plant operations, production and planning, in addition to purchasing.

Society of Cosmetic Chemists

The Society of Cosmetics Chemists, a new organization which has been in a nebulus state for about three years, held its first open meeting at the Lexington, Hotel, New York, May 15. The constitution and by-laws of the organization, establishing membership requirements for the society, were adopted. The objects of the group are stated as:—"To establish a medium through which scientific knowledge of the toilet goods industry can be disseminated, and to improve cosmetic and perfumery technicians professional standing. Its purpose shall be limited to such as are scientific, professional, educational, social or charitable."

Masion G. deNavarre, consulting cosmetic chemist, Detroit, is president of the society; Dr. Philip D. Adams, of the Andrew Jergens Company, is secretary; and Emery Emerson, of John H. Breck, Inc., is treasurer.

Papers delivered at the meeting are: The Perfumer's Art, Henri Robert, president of Henri Robert, Inc.; The Three Prime Factors in Successful Packaging, E. C. Emanuel, chief chemist, Glass and Closure Division, Armstrong Cork Company; Zinc Oxide in Face Powder, L. D. Grady, New Jersey Zinc Company; Color Matching in the Cosmetic Industry, E. I. Stearns, assistant director, Physics Section, Research Department, Calco Chemical Division, American Cyanamid & Chemical Co.; Antiperspirants, Ruth Bein, Good Housekeeping Bureau Laboratory.

Tainter Elected Sterling V.P.

Maurice L. Tainter, M.D., director of the Sterling-Winthrop Research Institute at Rensselaer, N. Y., was elected a vice president of Sterling Drug Co., Inc.

Coming to the Sterling organization in 1943 from the College of Physicians and Surgeons, San Francisco, where he had been head of the division of physiological sciences, Dr. Tainter served as research director of the Winthrop Chemical Co., a Sterling subsidiary, before becoming director of its research institute.

Dr. Karas to Investigate Abroad

Upon suggestion of leading persons in the industry, Dr. S. A. Karas formerly chief chemist of Helena Rubinstein has been appointed as scientific consultant by T. I. I. B., (Technical Industry Intelligence Bureau) of the Department of Commerce to investigate flavors, aromatic chemicals and cosmetics and

DR. S. A. KARAS

the cosmetic industry in Germany. While on this investigating mission Dr. Karas will visit friends in Greece, Paris, London and Geneva.

Kahle Joins Heyden

George F. Kahle, joined Heyden Chemical Corp., as a representative in

GEORGE F. KABLE

the Chicago area. During the past three years he was associated with the office of the Chief of Ordnance, handling production safety in munitions manufacturing plants. Earlier he was in the employ of Lithgow Corp., as a member of its sales engineering and development staff.

If you are reaching for a distinctive fragrance that will add lasting individuality to your product and momentum to your sales, consider Monsanto Ethavan,* Coumarin and Methyl Salicylate.

ETHAVAN is a Monsanto flavor principle with a vanilla-like odor and flavor, used as an aroma fixative in the formulation of delicate soaps and perfumes.

COUMARIN Monsanto is a synthetic odor principle used to enhance the bouquet of soaps and perfumes—also to amplify the delicate aroma of vanillin.

METHYL SALICYLATE, U.S.P., Monsanto synthetic oil of wintergreen, is used to impart a pleasant odor to soaps for pets.

SAMPLES are available. However, they are in limited supply because of present economic disruptions beyond Monsanto's control. Contact the nearest Monsanto Office, or write: MONSANTO CHEMICAL COMPANY, Organic Chemicals Division, 1700 South Second Street, St. Louis 4, Missouri. District Offices: New York, Chicago, Boston, Detroit, Charlotte, Cincinnati, Birmingham, Los Angeles, San Francisco, Seattle, Montreal, Toronto.

MONSANTO CHEMICALS

*Reg. U. S. Pat. Off.

Florasynth Plans on Coast

Under the leadership of William Lakritz, president and general sales manager who has been actively associated with Florasynth Laboratories during its growth, the corporation has announced augmentation of the Pacific Coast facilities by an enlarged manufacturing plant, distribution center and warehouse in San Bernardino, Calif., and the appointment of new personnel to handle manufacturing and merchandising operations in that section of the country.

Dennet Withington, president of the California Chemical Corp., has been named in supervisory charge of all activities on the Pacific coast. Morritt V. Eusey, who has been identified with the chemical industry for more than twenty-five years will be in charge of the Los Angeles offices now located 912 East 3 St. Associated with him is former Captain Eliot Friberg and John Allen, recently returned from the Army Air Forces.

The San Francisco office, now located at 268 Market, is being directed by Walter J. Morehead, who for the past fifteen years has been engaged in the distribution of chemicals and related products in the San Francisco territory.

The Florasynth Laboratories announced that the Katz family interests

ROBERT C. SENIOR

have retired from the corporation as of March 15, 1946, and from the management of the west coast offices. The organizational structure of Florasynth's eastern and mid-western facilities will remain the same. The main plant at 1513 Olmstead Ave., New York, and is under the direction of David Lakritz, who is also its chief chemist. Joseph Fein, the company's treasurer, is head of the purchasing department.

Robert C. Senior, son of the late C. L. Senior, one of the founders of the Florasynth Laboratories, has returned to his position in the company's sales organization after a leave of absence of over five years, during which time he served with the Army Air Forces. Mr. Senior saw service in North Africa and also South America.

Falck Joins Bristol Labs.

Sylvan S. Falck, formerly an industrial specialist with the WPB, has joined Bristol Laboratories, Inc., as assistant to the director of control of the pharmaceutical division.

SYLVAN S. FALCK

A Baltimorean, Mr. Falck was graduated from Johns Hopkins University in 1929. After working for a year with E. I. duPont de Nemours & Co., Wilmington, Del., as an analytical chemist, he returned to Johns Hopkins for a year of graduate study and in 1931 joined the Food and Drug Administration, spending 11 years with them.

BIMS Golf Dates

Martin Schultes, chairman of BIMS, has announced the dates for the summer golf tournaments. The first will be held at Baltusrol Golf Club, Short Hills, N. J., Thursday, June 27. Winged Foot Golf Club, Mamaroneck, N. Y., is the site of the second, to be held on Tuesday, August 13. Wheatley Hills Golf Club, East Williston, L. I., N. Y., Friday, September 13, has been chosen for the third tournament. All three clubs are well known for their excellent courses.

Prince Matchabelli Expands

Prince Matchabelli, Inc., has taken larger offices at 711 Fifth Ave. for executive offices and has acquired a new plant in Bloomfield, N. J. for manufacturing and general offices as steps in the company's post-war expansion program, Norman F. Dahl, president of the concern announced recently.

The new offices will occupy the greater part of the second floor of 711 Fifth Ave. A two-story high show room to be called the Matchabelli Crown Room will occupy the Fifth Ave., side formerly tenanted by the Manufacturer's Trust Co.

The new plant, acquired to permit Prince Matchabelli, Inc., to enlarge its manufacturing facilities, is located at West St., Bloomfield, N. J. and consists of a four story building for general offices and a one story factory building containing 100,000 square feet of floor space.

Henriksen Joins Zimmerman

W. F. Zimmerman, Inc., announce that Dr. Arthur Henriksen is now associated with them in the capacity of chief chemist. Affiliated for many years with the cosmetic industry, Dr. Henriksen was for the past two years with Wallace & Tiernan, Belleville, N. J., engaged on war work.

Trump Heads Royal Manufacturing

Frederic J. Trump has been elected president of the Royal Manufacturing Co., of Duquesne, a subsidiary of the Greater New York Industries, Inc. He succeeds to the vacancy caused by the death of Daniel Kovacs.

Mr. Trump has long been associated

FREDERIC J. TRUMP

with the pharmaceutical and cosmetic industries in Los Angeles, St. Paul, Chicago and New York in buying and merchandising capacities. He served as president of Puritan Laboratories, Inc., St. Paul, and vice president and general manager of G. Barr & Co., Chicago. More recently he was merchandising executive for Affiliated Retailers, Inc., a huge purchasing combination of national department stores.

A resident of Shippan Point, Stamford Conn., Mr. Trump was graduated from the University of Minnesota in 1932.

Fleuroma, Inc., Organized

Fleuroma, Inc., has been organized by Dr. Walter Lengsfelder and Emanuel Poons to specialize in the manufacture of perfume oils and bases for the per-

WALTER LENGSFELDER

fume, cosmetic and soap industry, with office and laboratories at 73 Sullivan St., New York.

Both Dr. Lengsfelder and Mr. Poons have had considerable experience in the essential oil, aromatic chemical and perfume business. Dr. Lengsfelder, president, is chief chemist, he was graduated from the Technical College of Vienna,

EMANUEL POONS

and after working in a number of leading perfume laboratories in Europe he joined Polak & Schwarz in Holland in 1933, he came to this country where he was in charge of the perfumery department of the American branch and was associated with them until this year when he established his own company.

Emanuel Poons has been in the aromatic business for 17 years following his graduation from Amsterdam College when he joined Polak & Schwarz. He came to this country in 1936, serving in an executive capacity for Polak & Schwarz, leaving that company to form Fleuroma, Inc., with Dr. Lengsfelder, to be general manager and director of sales.

Two Scientists Join Warner

William R. Warner & Co., Inc., has announced the appointment of two new members to its expanding research department. Dr. U. V. Solmssen as assistant to Dr. H. M. Wuest, scientific and technical director of the Warner Institute of Therapeutic Research, and Dr. Nicholas Ercoli as head of the department of Pharmacology.

Dr. Solmssen, a graduate of the University of Zurich, Switzerland, was formerly connected with Hoffmann-LaRoche, Inc. in Nutley, New Jersey, where he conducted research in riboflavin, Vitamins E, K and the synthetic estrogens.

Dr. Ercoli was assistant professor of pharmacology at the University of Padua, Italy, where he taught for three years. During the past six years he has been connected with biological research at the Roche Research Laboratories.

Wolfe Joins United-Rexall

Thomas Wolfe, who recently resigned after ten years as vice president of Western Air Lines, Los Angeles, has joined the United-Rexall Drug Co., as assistant to the president, it was announced by Justin W. Dart, president.

Since graduation from Northwestern University in 1934, Mr. Wolfe has been prominent in the field of aviation. In his capacity as vice president jointly of Western Air and Inland Air Lines he was in charge of traffic, advertising and publicity. Prior to joining Western he was district traffic manager for United Air Lines in Chicago from 1927 to 1936.

Dingman Joins Primrose House

Primrose House has just selected a new sales promotion manager, Ed Dingman, who previously was with Tussy Cosmetiques, a division of Lehn & Fink Products Corp. He will take over his new duties July 1, and will head new promotion, advertising and sales plans for Primrose House.

Elva Brandt will also join Primrose House July 1 as sales representative in the northern mid-west area, the same territory she formerly covered for Tussy Cosmetiques.

Breon Fellowship Continued

The George A. Breon Co., fellowhip at the University of Missouri has been continued for another year. The Breon fellowship is in the Organic Chemistry Department where the synthesis of hydrogenated diethylstilbestrol compounds will be studied further.

Merrell Names Sharp and Getman

Dr. George O. Sharp, since 1942 a member of the American Medical Association Chemical Laboratory, was appointed assistant chief chemist of the

GEORGE O. SHARP

Wm. S. Merrell Co., Cincinnati. In this position, Dr. Sharp will be concerned with the control department, where his experience in analytical chemistry and his training in biochemistry will be of extreme value.

Another appointment to the Wm. S. Merrell Co., was that of Major Frank Getman, as a director and secretary.

FRANK GETMAN

Before he joined the army in 1942, Major Getman, had wide experience in the drug field, as a member of a New York law firm specializing in drug and cosmetic work.

Oldest Squibb Employee Retires

August Anderson, oldest employee of E. R. Squibb & Sons, retired recently from the chemical manufacturing department of the company's laboratories, after 56 years of continuous service.

Mr. Anderson joined Squibb in 1890, three weeks after his arrival in this country from Sweden. He is the sole remaining employee to work under Dr. Edward R. Squibb who founded the company in 1858.

United-Rexall Buying Renfro Stores

United-Rexall Drug Co., has contracted to purchase the Renfro Drug Stores, consisting of 19 retail units, a warehouse and commissary, all in Fort Worth, Texas. The names Renfro and Rexall have been closely associated for many years with all the Renfro stores holding franchise to distribute Rexall products. The late E T Renfro founder of the Texas chain was one of the first Rexall dealers and was a director of United-Rexall prior to his death in 1934.

Frank F. Allen, president of E. T. Renfro Drug Co., will continue his association under the new ownership as consultant.

Pitman-Moore Advances Valentine

Kenneth F. Valentine has been appointed executive vice-president of the Pitman-Moore Division of Allied Laboratories, Inc., Indianapolis.

A little more than a year ago Mr. Valentine, upon returning from service as a Major in the Air Corps, was appointed assistant to the president. Prior to that he served the company as assistant sales manager, having entered its employ as a salesman in 1932.

R. J. Prentiss & Co. Represent Norwegian Firm

Isdahl & Co., supplier of cod liver oil, operating in Bergen, Norway, since 1859, has appointed R. J. Prentiss & Co., 110 William St., New York, as its representative in the United States. The account will be in the particular charge of Charles Hermann, vice president.

Shanahan Rejoins Innis, Speiden

Frank T. Shanahan has rejoined Innis, Speiden & Co., New York, as

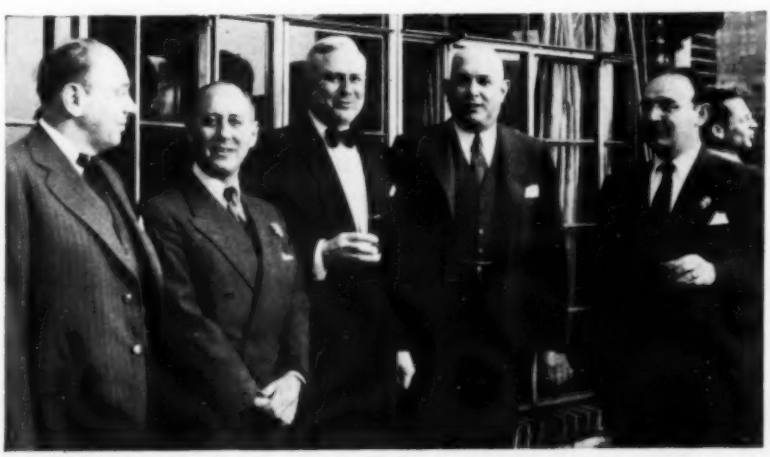
FRANK SHANAHAN

manager of the Export Sales division. His office will be at the company's headquarters at Liberty St. Mr. Shamahan spent four years with the Transportation Corps of the Army, holding the rank of Major upon his release.

Medal of Merit to G. W. Merck

Secretary of War Patterson presented a Medal of Merit, the nation's highest civilian award, to George W. Merck of West Orange, N. J., for his direction of the War Research Service.

Mr. Merck was a special consultant to the Secretary of War on biological warfare from June 1944, until October 1945, and has been on the Chemical Advisory Committee of the Army and Navy Munitions Board since 1939. He is the president of Merck & Co., Inc., manufacturing chemists, Rahway, N. J.



Guest of honor and his associates, snapped during the double-anniversary celebration in which J. B. Magnus, vice president of Magnus, Mabee & Reynard, Inc., celebrated his fiftieth birthday and thirtieth year with the company. In the usual order, R. B. Magnus, vice president of MM&R; A. W. Lewin; J. B. Magnus; P. C. Magnus, president, and Sidney Matthew Weiss, MM&R account executive and partner in the A. W. Lewin Co.

Zuni Co. Expands

Moving into larger, more spacious quarters, Zuni Co., of Hollywood, is now established in their new building at 1227 North Highland Ave., in Hollywood, Calif.

The new building features the very latest in modern architectural design, embodying the use of glass walls, inset glass-panel show cases, and the color scheme throughout the offices and plant is carried out in soft pastels.

Roca of Robertet Visits Here

Max Roca of P. Robertet & Cie., Grasse, France, was in this country on his first visit recently to see Aromatic Products Inc., principals in the United States for his company.

Richford to Distribute Blue River

The Richford Corp., New York, has been appointed sole distributor for Blue River plastic containers, designed and made by Blue River Plastics Mfg., Corp., 329 Canal St., New York.

J. George Kramer is named director of the package sales division of the Richford Corp. All inquiries in reference to Blue River packages should be addressed to this new Package Sales division.

Carbon & Carbide Moves in Buffalo

The Buffalo district office of Carbide and Carbon Chemicals Corp., has been moved to the Liberty Bank Building at 424 Main St., according to an announcement by company officials.

Sterling Drug Buys Breon

Purchase of George A. Breon & Co., of Kansas City, manufacturers of pharmaceutical specialties, by Sterling Drug Inc., is announced by James Hill, Jr., Sterling president.

Mr. Hill said the operation of the Breon Company "will continue under the same general management." The acquisition, he noted, "gives Sterling a broader base in the pharmaceutical field and permits us better to serve the physician with products not now in the Sterling line." These include bile salts and parenteral preparations.

Keyes on Heyden Board

Dr. Donald B. Keyes, vice president in charge of research for the Heyden Chemical Corp., New York, has been elected to the board of directors of Heyden and the American Plastics Corp.

imported TALCS are back.

INDIAN • FRENCH • ITALIAN

Once again Whittaker can meet your requirements for *any* grade of imported talc. Yes, these are the same high quality talcs you were getting before the war. They have excellent "slip", good color, and are available for prompt importation. Place your order with Whittaker with full assurance of getting talcs that are laboratory tested for uniform high quality.

• *Write or telephone today for full information*

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SALES REPRESENTATIVES

CHICAGO — Harry Holland & Son, Inc.
MEMPHIS, TENN. — L. E. Offutt Co.
PHILADELPHIA — R. Peltz Company
CLEVELAND — Palmer Supplies Co.
NEW ORLEANS — E. W. Ortenbach
TORONTO & MONTREAL — Richardson Agencies, Ltd.

Opening in Colombia

Alfonso Martinez, of the firm Martinez & Rego Ltda., Cali, Colombia, S. A., spent six weeks in the United

ALFONZO MARTINEZ

States recently in an effort to obtain lines of pharmaceutical specialties, cosmetics, and anything connected with the wholesale drug line. Companies interested in distribution should write, Martinez & Rego Ltda., Apartado Postal 88 Cali, Colombia, S. A.

Sixty-one Rejoin Givaudan

Sixty-one of the Givaudan-Delawanna, Inc., employees who served with the armed forces have returned to their jobs, leaving eighteen still in the services. Three members of the organization were killed in action during the war.

Aside from the men who rejoined the company, an additional twenty-two veterans who were not employees of the firm before the war have been given jobs.

Dr. Volwiler Awarded Degree

The honorary degree of Doctor of Science was conferred on Dr. Ernest H. Volwiler, executive vice president of Abbott Laboratories, at Miami University (Ohio) commencement exercises, June 2, 1946, Dr. Ernest H. Hohne, president of the university, announced the award was given in recognition of Dr. Volwiler's contributions to chemistry and medicine.

A graduate of and a former teaching assistant at both Miami University and the University of Illinois, he began his career at Abbott Laboratories in 1918 as a research chemist.

Chief chemist since 1920, he became a member of the board of directors and director of research in 1930. Elected vice president in charge of research and development in 1933, he was elevated to executive vice president last March.

American Home Advances O'Connor

W. Boyd O'Connor, general manager of Ayerst, McKenna & Harrison Ltd., Division of American Home Products, Inc., has been elected president and general manager of the company.

A graduate in pharmacy from Toronto University, Mr. O'Connor joined Ayerst, McKenna & Harrison Ltd., in 1931. In 1939 he became assistant sales manager, and three years later general sales manager for Canada. In 1944 he came to New York City as assistant general manager of the American company and shortly thereafter, he was named general manager.

Douglas Morrell was elected treasurer and comptroller, and Donald W. Lamb, formerly of Rare Chemicals, Inc., as assistant to N. S. Horton, advertising manager.

Lentheric Buys New Plant

Lentheric, Inc., announced recently the purchase of the Ford Building, 32-14 Northern Boulevard, Long Island City. The building is presently occupied by the Navy, but Lentheric plans to take possession on June 30 and will remodel it as a permanent location in the United States.

Built by the Ford Motor Co., in 1915, the building is eight stories high and of brick and concrete construction. It contains 480,000 square feet of floor space.

Industrial Engineering Agency

Irving Wilinkin and Thomas La Bounty, industrial engineers for Helene Curtis Industries, Chicago have opened up their own industrial engineering agency, specializing in the servicing of drug and cosmetic manufacturers. The offices are located at 20 West Jackson Blvd., Chicago.

Rockwell Buys A. H. Ross Co.

The A. H. Ross Co., Inc., manufacturers of packaging machinery, has been purchased by the Rockwell Manufacturing Co., Pittsburgh, Col. Willard F. Rockwell, president of the latter concern announced recently.

A. H. Ross, president of the concern, will become vice president and general manager of the packaging machinery division of Rockwell, and the company will continue to operate under the name of A. H. Ross Co., Inc., and maintain its plant at Ludlow, Kentucky.

Bilek Advanced by Lehn & Fink

Edward Bilek, of Lehn & Fink Products Corp., has recently been promoted to the position of sales supervision

EDWARD BILEK

manager for the entire country. Mr. Bilek joined the company twenty years ago, and previous to his latest promotion was assistant to the sales manager.

Schimmel Appoints McGwier

Schimmel & Co., Inc., have appointed Yates D. McGwier as sales representative throughout the southwestern states. Mr. McGwier was until recently a major in the Army Air Forces with which he served in the South Pacific for three years.

A native Texan, Mr. McGwier attended the Southern Methodist College. Prior to his four years in the service he had some thirteen years selling experience which brought him into close contact with the perfume, drug and allied industries. He intends to make his headquarters in Dallas.

Frank Fanning Opens Offices

Frank G. Fanning has opened offices in 50 East 42nd St., New York, as a sales agent for lanolin and wool grease, as well as a line of fine and industrial chemicals. Mr. Fanning recently resigned as a junior partner and sales director of N. I. Malmstrom & Co., lanolin and wool grease refiner, Brooklyn, after an association of twenty-six years. Telephone number is Vanderbilt 6-3393.

Felton Adds Three

Felton Chemical Co., Inc., has announced the addition of two ex-service men to its New York City sales force, Leonard Allen and John de Meo. Robert Burke has augmented Felton's Chicago sales branch, and will call on the trade in that territory.

Burrell & Neidig—Consultants

Harry Burrell, and C. P. Neidig have formed the firm of Burrell & Neidig, an

HARRY BURRELL

industrial chemical consulting company with offices at 115 Broadway, New York.

Mr. Burrell was formerly director of research of the Heyden Chemical Corp.,

C. P. NEIDIG

Carfield, N. J., laboratories, and Mr. Neidig was in charge of the market research and technical service group for the Heyden Chemical Corp.

Copper Tan in New York

Copper Tan Mfg. Co., have opened offices at 366 Madison Ave., for distribution in the New York area. Brought east by four war veterans from California, the company is stepping up production for the eastern seaboard. The products are a sun tan cream and oil which are said to have had considerable success both in California and Florida.

Hain Joins American Products

After three years service as a Lieutenant in the Chemical Warfare Service of the U. S. Navy, Bernard E. Hain, has joined the American Products Co., Cincinnati, as chief chemist. Mr. Hain. was formerly research chemist with the Campana Corporation of Batavia, Ill.

Frailey Address DCAT

The meeting of the Drug, Chemical and Allied Trades Section, New York Board of Trade, held May 22, at the Hotel Pennsylvania. Featured a speech on the "Unification of Food, Drug and Cosmetic Laws and Regulations" by Carson Gray Frailey, DCAT Washington representative, and an authority in food, drug and cosmetic law.

Five New Warner Appointments

Five new appointments have been announced for William R. Warner & Co., Inc., with Roy S. Koch as assistant to the president, Elmer H. Bobst. Mr. Koch was chief of the Biological and Parenteral Solutions Unit, Drugs and Cosmetics Branch W.P.B.

Karl B. Rosen has been appointed production manager in New York. He was formerly in charge of ampul production of E. R. Squibb and Sons and prior to that manager of Loeser Laboratories, Inc.

Dr. Francis J. Queally, recently separated from the U. S. Army Medical Corps as a major has joined the staff of the medical department of William R. Warner & Co., Inc.

Dr. R. D. Shaner as medical director and Dr. H. M. Wuest as vice president, scientific and technical director and head of the Warner Institute for Therapeutic research, complete the list of recent appointments. Both Drs. Wuest and Shaner were formerly associated with Hoffmann-LaRoche, Inc.

Sterling-Winthrop Research Labs.

The formation of the Sterling-Winthrop Research Institute as a new division of Sterling Drug Inc., to expand its research and co-ordinate that of its divisions and subsidiaries, was announced recently by James Hill, Jr., president. The Institute will be housed in new research laboratories to be erected at Rensselaer, N. Y. when building materials are available.

Dr. Maurice L. Tainter, presently research director of Winthrop Chemical Co., Inc., a subsidiary, has been named director of the Institute. Its administrative board consists of Edward S. Rogers, chairman of the board of Sterling; Mr. Hill, Dr. Theodore G. Klumpp, Winthrop president; Dr. J. Mark Hiebert, Sterling vice president and general manager of the Frederick Stearns & Co. Division, and Dr. Tainter.

Assisting Dr. Tainter as associate director is Dr. C. M. Suter, who also serves as director of chemical research. Dr. Lloyd Miller heads the biological division; Edward Davy, the pharmaceutical division; and Dr. Elmer Lawson, the patent division.

Stanton Labs. Incorporates

The partnership of Michael A. Stanton, Bettie Stanton and Mathilda Kline, known as Stanton Laboratories, has been dissolved, with Stanton Laboratories, Inc., 227 Krams Ave., Philadelphia, taking all business assets and liabilities of the former company.

Two representatives of the aromatic industry in France who recently paid a flying visit to America. M. Eugene Mane, president of V. Mane Fils, of Grasse, France, accompanied by his secretary, Jean Mallavel. Shown in the office of Albert Verley & Co., from left to right; M. Eugene Mane, Mr. Bennett, head of Verley and M. Jean Mallavel.

Pneumatic Scale Appoints Todt

The Fred Todt Co., of Los Angeles, has become the west coast representative for the full line of packaging and bottling equipment manufactured by Pneumatic Scale Corp., Ltd., at North Quincy, Mass. The territory also includes the Canadian provinces of Alberta and British Columbia.

Assisting Mr. Todt as sales representatives for Pneumatic packaging and bottling machinery are, Bruce B. Wallace and George E. Libby. Mr. Wallace has been associated with the Todt Company for the last two years, having spent several years with the Foxboro

FRED TODT

Co., Foxboro, Mass. Mr. Libby was a factory representative located in San Francisco, previously he served as salesman attached to the Chicago branch office.

Charles A. Twombly, who has been with Pneumatic for over forty years, is to serve in the capacity of technical advisor in packaging and will be connected with the San Francisco office. The staff will also be supported by Edward J. Bostwick, an installation engineer who has been servicing Pneumatic equipment for over twenty years.

Evans Employees Reject Union

An election was held on May 22, 1946, by the National Labor Relations Board to learn whether production and maintenance employees at the plant of Evans Chemetics, Inc., Waterloo, N. Y., wished to have the International Chemical Workers Union of the American Federation of Labor as their bargaining agent. Of the votes cast by those eligible, 70 per cent rejected the union.

Factor Buys Sales Builders

Continuance of the entire organization of Sales Builders, Inc., as the exclusive distributor of Max Factor Hollywood products in the United States has been assured by Factor's acquisition of the shares of the Sales company.

Officers of both companies, in a joint statement, advised that Sales Builders, Inc., will continue functioning intact as the exclusive selling agency for the Max Factor Hollywood cosmetic line.

Present plans are for a continuance of Sales Builders, Inc., as an entirely separate corporate and management unit. No changes in officers, personnel or sales policy are contemplated, except that plans are already under way for expansion of advertising and selling activities.

The Mennen Co., was host to a group of suppliers at the Robert Treat Hotel at Newark, N. J., at the eighth annual Mennen Peddler Party. Left to right: J. Manheimer, Manheimer Essential Oil Co.; George Miller, American Can Co.; W. G. Mennen, Sr., president; William Mennen, Jr., treasurer; William Zimmer, retired plant superintendent.

Smith, Kline and French Add Personnel

Harlan L. Tuthill, Ph.D., formerly with Rohm and Haas, has joined the research staff of Smith, Kline and French Laboratories, as head of the department of Physical Chemistry.

James F. Kerwin, Ph.D., and James W. Wilson, Ph.D., have been added to the division of Organic Chemistry at Smith Kline and French Laboratories.

Rader Joins Bombi

Kenneth Rader recently resigned as an account executive of the A. W. Lewin

KENNETH RADER

Co., to join Bombi Inc., N. Y. where he will direct advertising and sales promotion for Black Magic.

Louis K. Liggett

Louis K. Liggett, seventy-one, founder of the United-Rexall Drug Co., and the Liggett chain of drug stores, died Wednesday, June 6. His home was in Brookline, Mass.

Mr. Liggett was born in Detroit, and when twenty, entered the drug business, three years later he became general manager of the Chester Kent Co., in Boston. It was from this beginning that he founded the United-Rexall Drug Co.

Traveling throughout the country, Mr. Liggett was struck by the lack of co-operation between independent druggists. He conceived the idea of knitting these stores together, by forming a manufacturing company which would distribute its products through member druggists holding exclusive territorial privileges.

Probably his largest deal concerned Boots Pure Drug Co., of England. Mr. Liggett met Sir Jesse Boot in England while buying horses in 1920. He had heard that Sir Jesse was willing to sell a large block of stock and bought for about $10,000,000 a controlling interest

Cut Water Bills up to 97% with a G-E Evaporative Cooler

THROUGH recirculating cooling water in a closed system, a G-E Evaporative Cooler can often cut water bills up to 97%.

To dissipate up to 240,000 BTU per hour a conventional shell and tube cooler might require an average of forty-seven gallons per minute. *A G-E Evaporative Cooler consumes only ONE gallon per minute to do the same job.*

Plus these other advantages

Since its closed system permits economical use of treated water, a G-E Evaporative Cooler can reduce maintenance costs due to impurities. The danger of immediate shutdown through water failure is minimized, too, since so little make-up water is required.

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in the company. In 1933 Mr. Liggett was willing to sell the stock back, and accepted an offer of $30,000,000, by the English company. The deal, however, was cancelled by the Exchequer, which feared the effect on sterling exchange of the transfer overseas of so large a sum.

Mr. Liggett survived several financial reverses. He suffered major personal losses in the 1921 depression, but tided over by a fund subscribed by Rexall druggists was able to save his business.

In 1928 he had merged United Drug with Sterling products to form Drug, Inc., but plagued by decreasing business and high rents, went into bankruptcy in April 1933. The merged company was dissolved by a vote of the shareholders. Mr. Liggett retained control of United Drug, Inc., and managed it personally until 1943, when he became honorary chairman of the board and the operation of the company was taken over by Justin W. Dart, then thirty-four years old.

Charles E. McManus

Charles E. McManus, sixty-four, chairman of the Crown Cork & Seal Co., Inc., Baltimore, died recently at the New York Hospital. He lived at Green Gables, Spring Lake, N. J.

Mr. McManus designed and developed many of the processes which his company used in the manufacture of bottle caps and capping equipment. In 1912 he organized the New Process Co., in Brooklyn. This firm merged in 1927 with the old Crown Cork and Seal Co., and he was president of the new firm until he retired last winter to become chairman of the board.

Surviving are his wife, and two sons, Charles E. Jr., executive vice president and Walter L. McManus, secretary of the company.

Robert F. Joyce

Robert F. Joyce, 52, manager of the newly formed Insecticide sales division of Orbis Products Corp., New York, died suddenly at his home, 74-22 Seventh Ave., Brooklyn, April 3, of a heart attack.

Mr. Joyce, a pioneer in the development of derris resinates and rotenone insecticidal products, was an executive of Derris, Inc., for the past eight years before joining Orbis in his new capacity on April 1. He leaves a widow and four sons.

Clement Leath Speiden

Clement Leath Speiden, fifty-two, director and former vice president of Innis, Speiden & Co., died June 1 at the University of Virginia Hospital. He lived in Somerset, Orange County, Va.

Born in Hamilton, Ontario, Mr. Speiden was graduated from Cornell University in 1915. He served in the Army on the Mexican border, and during the first world war he was a captain in the 3rd Division in France.

After World War I Mr. Speiden entered the Innis, Speiden Co., working in the company's foreign department, later becoming secretary and vice president. He retired nine years ago from active participation in the company but retained his direction.

A group of visiting Syrian medical and research scientists were guests of the Winthrop Chemical Co., recently studying American and English scientific practices. Shown above from left to right: Dr. Anis Maklouf, Lebanese surgeon; Dr. A. E. Sherndal, Winthrop vice president; Dr. R. Asha, Syrian consul general at New York; Dr. Tainter, chief research director; and F. A. Kettaneh, Winthrop's middle east sales agent.

Horace William Bigelow

Horace William Bigelow, general counsel for the American Drug Manufacturers Association from 1922 to 1939, died in Detroit May 18, at the age of fifty-seven years. He had been in ill health for several years. This compelled him to retire three years ago from the position of counsel for Parke, Davis & Co.

Mr. Bigelow was born in Corunna, Mich., he was a graduate of the University of Michigan, getting his LLB. in 1912. He was a major in the sanitary service in the first world war, and had been connected with the Detroit law firms of Stevenson, Carpenter, Butzel & Barkus and Warren, Cody, Ladd & Hill.

Mrs. Bigelow survives her husband, also two children, Mrs. John G. Ladue, St. Louis, and William Horace Bigelow, Detroit.

S. Wylie Walker

S. Wylie Walker, former assistant secretary and office manager of Merck & Co., Inc., Rahway, N. J., died at Chestnut Hill Hospital, Philadelphia, on April 27. Mr. Walker was born in Philadelphia in 1876 and attended Geneva College. He joined Powers-Weightman-Rosengarten Co., in 1907, and upon its merger in 1927 with Merck & Co., his activities were transferred to Rahway, New Jersey. He was the former president of the Merck Quarter Century Club and though retired in 1941 he continued to act in an advisory capacity because of his wide knowledge and experience in the business.

John E. Van Vranken

John E. Van Vranken, production executive for McNeil Laboratories, Inc. Philadelphia, died May 21, in the Pennsylvania Hospital, after a heart attack.

He was born in Auburn, New York, forty-six years ago and received his preliminary education in that city, later graduating from Syracuse University. During World War I he served in the Navy and for eight years thereafter. Following this, he was employed by the Norwich Pharmacal Co., for a year, then joined Walker-Corp., with whom he served for fifteen years, rising to become president and general manager. His association with McNeil Laboratories began in 1943.

He is survived by his wife Ruth, one son Richard Thomas, a daughter Claire Emilie and a sister Mrs. Margarette Van Vranken Vose.

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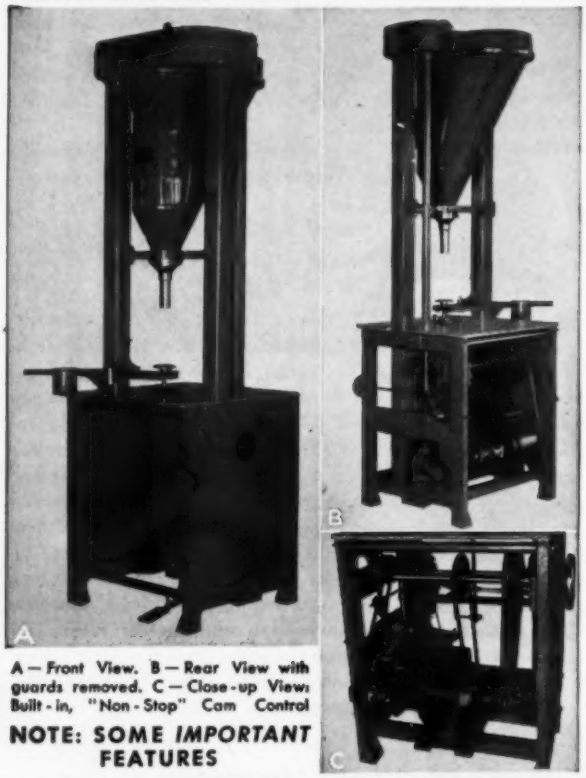
We feel sure the new, *improved* S & S Universal Filling Machine will prove to be a worthy successor of the old, reliable S & S Universal, recognized for so many years in such a great number of industries, as the Standard Filling Machine.



A — Front View. B — Rear View with guards removed. C — Close-up View: Built-in, "Non-Stop" Cam Control

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4. Twin disc clutch (5 H.P. capacity).
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Under present manufacturing conditions and with the accumulation of unfilled orders in our files, deliveries are uncertain; but—S & S machines are "worth waiting for."

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ROSS DRUG DRYERS

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Absolute uniformity of drying, regardless of season; protection against contamination in the processing; speed and safety;—these are the essential requirements for modern drug drying. ROSS Dryers, of batch or conveyor type, embody exclusive design and operating features that make them first choice with leading manufacturers in the drug industry.

Prominent Users of Ross Dryers include:
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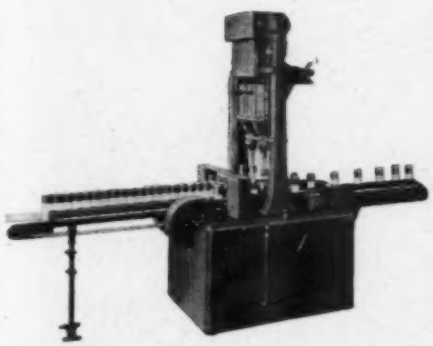

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Fully Automatic Volume Filler
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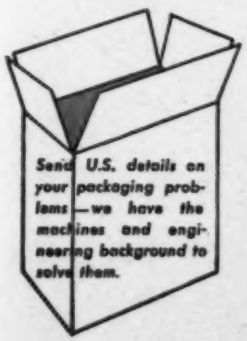
Manufacturers of the powders illustrated above economically solved their filling problems with **U S.** Using the new fully automatic, twin station Model JK Packer, you too can achieve dollar saving results. And operators will praise its clean, efficient operation and its many new features.

The Model JK fills with closest accuracy up to 60 containers per minute on all kinds of powdered and granular materials. Normally the operation of this automatic machine is to fill by packing under controlled pressure; for those materials that require settling rather than packing, the new vibrating filling platform is furnished.

An efficient dust collector hood at the filling stations collects any escaping particles, keeps the machine and surrounding air clean and free of annoying dustiness. This, combined with the new shut-off gates which eliminate the drip at the augers, makes the filling operation absolutely clean.

Combine the foregoing with other new features designed to provide efficiency in performance and convenience for the operator and you have a machine that is the last word in modern high-speed powder filling.



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Cost-saving *SPEED*

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Wraps 250 packages per minute

With the Model CM-2 you can give your package the protection and the strong selling advantages of cellophane at *lowest cost*. With only one operator in attendance, it will wrap up to 250 packages per minute.

Combined with its high speed is its adjustability, enabling you to wrap several different sizes on a single machine.

And you can also give your package the welcome convenience of an easy-opening tape.

Floor space presents no problem, for the CM-2 will fit nicely into an area of only 5'4" x 4'4". It can be equipped with magazine feed or conveyor feed, permitting direct hook-ups to cartoning machines.

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Production Forum

By Francis Chilson

Industrial Consultant

A War Record

It is my recommendation that some special sort of industry recognition be given to Lupton Patten, president of the Chattanooga Medicine Company, for what I believe is an unrivaled war record. Some of the firms in the industry had their volume increased by 25 per cent, as a result of war business, some had it increased 50 per cent, or even 100 per cent. But the business of the Chattanooga Medicine Company in drugs and in food products—K-ration—was multiplied more than a thousand per cent. Some indication of the volume handled by this company is indicated by the fact that its pre-war factory personnel amounted to about 125 or 150 persons. This was increased to more than 1,500 persons. An 8 hour day became a 24 hour day. Carloadings which in peace time used to amount to 10 or 12 a year, became 10 or 12 a day.

Yet this enormous volume was handled with little addition to the factory management. Before the war that management consisted of Sam Noble, plant manager, Enoch Jennings, factory superintendent, Ward Hastings, plant engineer, Jim Grainger, chief chemist, Joe Persinger, purchasing agent. This top factory organization is still the same with one addition, Bill Pope.

Men who had been laborers and printers of various grades were suddenly converted into foremen. All the headaches and all the problems of sudden growth were present. Men who had never directed anybody's efforts before had to be trained in short order to shoulder this responsibility. Personnel troubles of all kinds developed in Chattanooga, as they did elsewhere. People were hired one day, and never showed up again. Some were trouble makers who came to work drunk. All of the alibis which I have heard all over the trade as an explanation for failure to maintain sanitation standards, could also have been made in the case of the Chattanooga Medicine Company—but they weren't.

The responsibility for this attitude, and the responsibility for the success of the company is due to Lupton Patten—a man who will not take alibis. Lupton Patten is a mild, unassuming guy who doesn't regard himself as a high pressure operator, but who—take it from me—when he gets hold of an idea or decides to do something, can hang on like a cross between a snapping turtle and a bulldog. The velvet glove contains an iron hand. It was because of his implacable tenacity that the Chattanooga Medicine Company, during the time of its greatest growth also achieved the highest standards of cleanliness I have ever seen anywhere in any branch of the industry. Considering the green help and the fact that in the K-ration operation alone, something like two tons of waste paper had to be disposed of daily, it would have been excusable to relax the pressure somewhat and condone some slight failures to maintain such exceptionally high sanitary standards. It would have been easy to tolerate some disorder and dirt on the ground that some of the new workers were green farm hands and hill-billies who had never worked in a factory before. To tell the truth, when the terrific production pressure was on, and the boys in the plant couldn't get enough labor, couldn't get any equipment, and couldn't get enough materials to keep their lines going, they did kick back a few times with some grumbling alibis. But not often nor for long.

Whenever plant sanitation was concerned, Lupton Patten never for a moment relaxed the pressure, nor accepted any alibi whatsoever. When the Quartermaster General of the United States Army visited the K-ration plant in Chattanooga, his remark was that the plant "looked like a ballroom." It was clean, it was colorful, it was orderly; it was kept that way through all the strain and stress of war—*and it is still that way.*

At the outset of the war, Lupton Patten recognized that high standards and high production go together. In retrospect, I am convinced that everyone in the organization—even those who at times were irritated because of Lup's implacable insistance on spit and polish neatness when labor was so damned hard to get—realizes now that the extraordinary production performance of the company was due primarily to that insistence. The performance of this company exemplifies what I have been preaching for so long: Order and efficiency are synonymous, and neither is attainable in a dirty environment.

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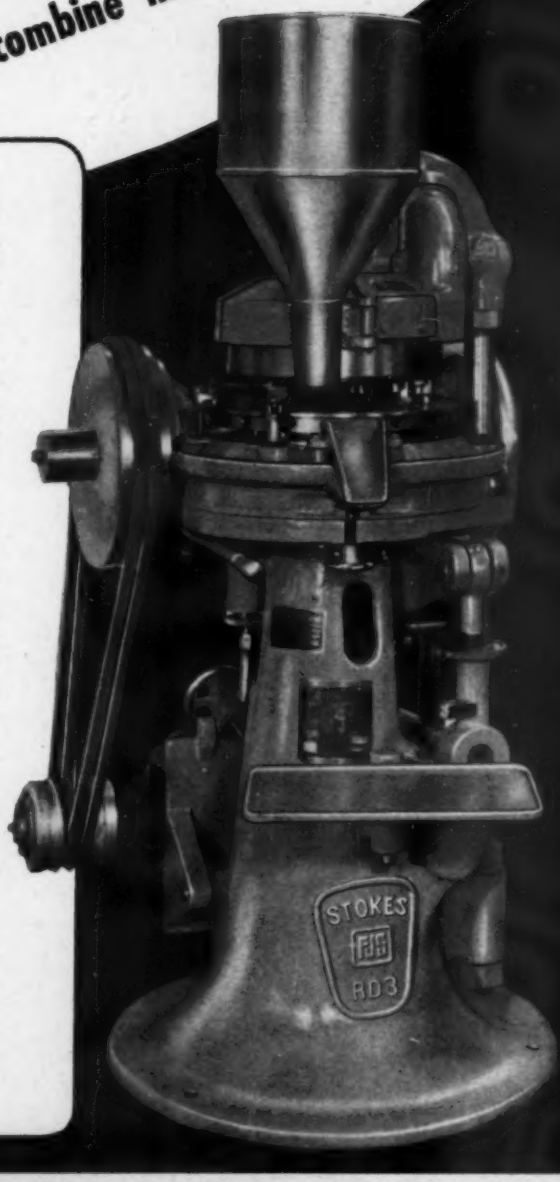
to combine incompatible materials

Your Stokes D-3 Rotary Tablet Machines are ideal equipment for preparing granulations by the "slugging" method . . . often the best, in many cases the only satisfactory method, because it eliminates wet mixing and drying, simplifies the problem of combining incompatible materials and is successfully used in handling heat- and moisture-sensitive and other troublesome formulas.

Your D-3 machines were developed especially for handling fine powders, are heavy and rugged, have a variable speed drive that makes quickly available the most efficient operating speeds for making both "slugs" and finished tablets. They are equipped with our patented Excess Pressure Release to prevent possible damage in precompressing operations.

For further information on precompressing methods or other help on tabletting or preparation of materials or care of machines, write us. Ask for booklet "Tips", to help prolong the life of punches and dies and tablet machines.

F. J. STOKES MACHINE COMPANY
5932 Tabor Road Olney P. O. Phila. 20, Pa.



F.J.Stokes TABLET MACHINES PHARMACEUTICAL EQUIPMENT FJS Est 1895

Lupton Patten had a magnificent team working with him. They worked willingly for long hours. They were fertile in ideas and in abilities. Their esprit d'corps was magnificent. Many other organizations have top-notch men too, but few, indeed, have as directing heads men who can so clearly set standards and coordinate an organization to achieve those standards with such little apparent effort and with as little fan-fare as characterized the work of Lupton Patten, president of the Chattanooga Medicine Company.

Yet in spite of a war job of titanic proportions, time was found to establish an ethical pharmaceutical business, a chemical business, and an entirely new food business. A remarkable job was done by a remarkable man, and in my judgment he is only now hitting his stride.

Definitions

Communism: Any belief with which you are in violent disagreement.

Communist: Anybody who stubbornly refuses to accept your ideas.

Proprietary Speech

From various quarters I have heard some comments on my speech before the Proprietary Association at its recent convention. Some of the comments are laudatory, some are indifferent, and some of my auditors thought it was lousy. So do I. I was a fathead for accepting a topic which really was three or four topics in one. Hence, I had to cover a vast amount of territory in catch-as-catch-can fashion. I was compelled perforce, to rehash a lot of the material that has appeared in this department from time to time in the past. After giving the Proprietary boys holy hell for not keeping their plants cleaned up, I completely forgot to soften the wallop by telling them that in any case, proprietary plants as a whole, while not as clean as they should be, are much cleaner than most ethical drug plants. I know this remark will rasp the boys in the ethical branch of the industry, and they will at once reply that the proprietary fellows should have little difficulty keeping clean because they make so few products and make them in such large volume that keeping clean should be no trick at all. All I can say is, the quickest and easiest response to any statement is usually an alibi. You and I, and the rest of the human race are essentially lazy critters; we do what circumstances compel us to do, sometimes to the best of our abilities, but when somebody comes along and points out a fault, or a failure to do that little extra something which differentiates a good job from a damn good job, we resent it and immediately produce an alibi.

The Ideal Foreman Should

1. Be sincere in his work.
2. Be energetic and alert.
3. Love his job.
4. Be respectful to his employers and fellow employees.
5. Fight for his own and his men's rights.
6. Argue necessary points, but don't carry the argument to extremes.
7. Be at all times an example to his own men, and study the character of all those in whom he comes in contact.
8. Check production and character of work done each minute of the day.
9. Schedule work carefully to see that machines and men are not idle.
10. Insist upon obtaining the best from every one in his department.
11. Tolerate no disobedience, and be not guilty of same.
12. Insist upon cleanliness and a well-kept department at all times.
13. Indulge in no idle conversation with fellow employees; and above all, never with outsiders who come in the plant.
14. Be modest, but confident, and never have a "big head."
15. Be pleased with his job, but be constantly at work to make it a better one.
16. Read and study so that new processes may be developed to produce better goods and to lessen costs.
17. Be on his feet at all times, offering advice and assistance to workers.
18. Should study the time necessary to do each particular piece of work, and be aware of when more time than requisite is used for a job.
19. Catch instances of when too much time is used by a worker before hours are wasted.
20. Set and adjust machines where extra care is necessary, and when it is required that more than one machine be set at the same time.
21. Never be late at work or otherwise negligent in the job.
22. Speak well of the firm at all times, and give no information to outsiders.
23. Be proud of his department, and sincere in the wish to create a better one.
24. Be careful that he and all employees take good care of machinery and equipment.
25. Follow studies and try to make constructive suggestions for his own and other departments, so that work will be better routed and operations more completely synchronized.
26. Give the best that he has at all times, and always be loyal to his company.

The following information is supplied by manufacturers of the equipment described and claims made below by these manufacturers are passed along for what they are worth. Presentation of such notice in this department is not to be taken as endorsement of the claims or of the equipment.

Ampoule Inspection Machine

Reports continue to come in on the progress of the RCA electronic ampoule inspection machine. There is

TAKES THE WATER YOU HAVE

CATION

EXHAUSTION

$Ca(HCO_3)_2 + H_2X = CaX + 2H_2O + 2CO_2$

$MgSO_4 + H_2X = MgX + H_2SO_4$

$2\,NaCL + H_2X = Na_2X + 2HCL$

REGENERATION

$CaX + H_2SO_4 = H_2X + CaSO_4$

$Na_2X + H_2SO_4 = H_2X + Na_2SO_4$

ANION

EXHAUSTION

$2A + H_2SO_4 = A_2{\cdot}H_2SO_4$

$A + HCl = A{\cdot}HCl$

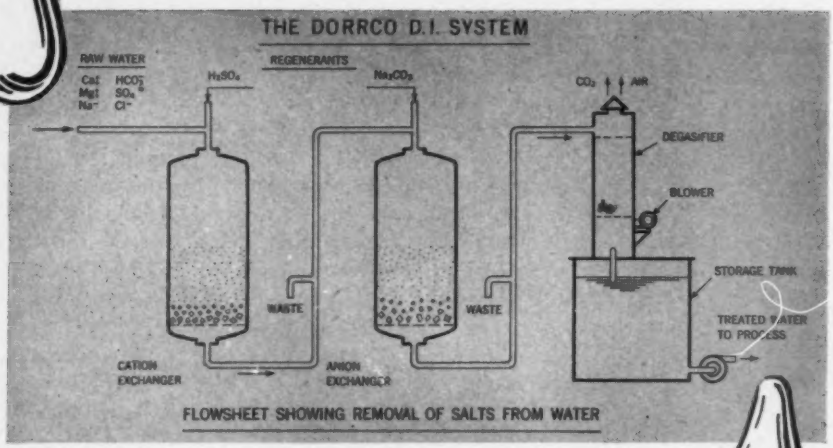
REGENERATION

$A_2{\cdot}H_2SO_4 + Na_2CO_3 = 2A + Na_2SO_4 + H_2O + CO_2$

$A{\cdot}HCl + Na_2CO_3 = A + NaCl + H_2O + CO_2$

H_2X = REGENERATED CATION

A = REGENERATED ANION



MAKES IT THE WATER YOU WANT

The equivalent of distilled water at a fraction of the cost

If you're still paying high prices for your process water, it will pay you to investigate the Dorrco De-Ionization System. It treats whatever water you have, makes it the equivalent of distilled water, for 2 to 20 cents per thousand gallons.

Operating on the principle of ion exchange, the D-I System utilizes an improved multi-stage regeneration process. This process gives you close control over water properties—gives you prescription water to meet your most exacting plant requirements. The entire system comes to you in a single, compact, self-contained unit. Write Dorr today for particulars on the D-I System.

WHAT D-I DOES

- Removes simple hardness
- Decreases Bicarbonate Alkalinity
- Reduces total solids
- Performs two-stage de-ionization with regeneration of exchangers
- Delivers capacities of 100 to 1500 gallons per hour

WHERE D-I CAN BE USED

Foods	Chemicals
Rayon	Spirits
Pulp and paper	Laboratories
Metal	Pharmaceuticals
Cosmetics	Dyes
Ceramics	Steam plants

DORRCO

1561

THE DORR COMPANY, ENGINEERS

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WESTPORT, CONN.

SUGAR PROCESSING
PETREE & DORR DIVISION
570 LEXINGTON AVE., NEW YORK 22, N. Y.

DORR

RESEARCH ENGINEERING EQUIPMENT

ADDRESS ALL INQUIRIES TO OUR NEAREST OFFICE

grave doubt among those who have closely followed the progress of the equipment, that it will be as good or any faster than hand inspection. Some time ago in this column, I expressed doubt that it would ever be mechanically practical or economically feasible. I still feel that way, but at the recent ADMA convention, one of the boys from the Wm. S. Merrell Co. offered an angle I hadn't thought of before which is that if the machine demonstrates an ability to cull out floaters and other foreign bodies, and if inspection by the machine is accepted as a standard by F. & D. A., then everybody will have a standard at which to shoot, whereas now they have none. I think that is a good angle and sound common sense. But just as there are a lot of firms whose standards of quality are very much higher than those set either by the USP or N.F., there are those whose standards will continue to be far beyond any standard which could conceivably be established by mechanical means. There are some firms whose standards are set at what is legally permissible or commercially acceptable; there are others who go very far beyond this. It is perhaps not without significance that the firms in both the proprietary and ethical branches of the trade, and in the cosmetic industry as well, whose standards are exceptionally high, are also the most successful.

Hi-Vacuum

From the Vacuum Engineering Division of National Research Corporation comes High Vacuum—a precise new tool for industry. For the first time, it provides commercial applications with pressures in the range of .000001 to 1 MM. Hg. Previously, such pressures were obtainable only by physicists in completely equipped scientific laboratories.

Now, by developing entirely new and advanced techniques, industry uses them in the modern production of penicillin, blood plasma, optics, food, magnesium and many other things. The possibilities are practically unlimited.

For your information, and by way of explanation, the Vacuum Engineering Division of National Research Corporation at 100 Brookline Avenue, Boston, Mass., offers a free 24 page book entitled "High Vacuum for Industry." Send for it on your business letterhead.

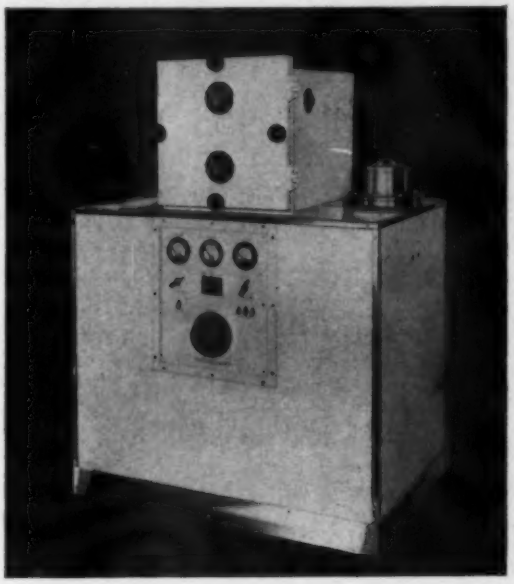
Experimental Dehydration Unit

National Research Corporation offers a small dehydration unit, Type 3501, for use in the laboratory or in pilot production. This unit is a complete "package" equipment for the desiccation or concentration of heat-sensitive biologicals, antiobiotics, food products and fine chemicals and is a development of equipment used in NRC's own research department for experimentation and small-scale production.

The pumping system consists of a 2″ oil diffusion pump backed by a 12.5 C.F.M. mechanical pump which is also used for roughing. Time required to pump down to 200 microns of Hg. from atmospheric pressure is 4 minutes and the blank-off is 1 micron or less. Water vapor is handled by a carbon dioxide and acetone (or alcohol) cold trap with a capacity of 4 pounds of ice.

Three thermocouple gauges, at the fore pump, diffusion pump and cabinet, indicate vacuum conditions. Provision for four thermocouples in the cabinet permits control of heat input. All controls and gauges are located on a central control panel.

The drying cabinet measures 16″x 16″ x 24″, and it is possible to connect larger containers to the system by means of four outside nipples. The cabinet is equipped with 3 adjustable shelves electrically heated with a controllable in-put of 1 kw.



All mechanism is enclosed in a housing finished inside and out with white baked enamel. Trim and table top are of stainless steel. Removable panels are provided for easy servicing and sight ports permit observation of the illuminated interior at any time.

The experience of National Research Corporation, pioneers in this type of vacuum engineering and builders of the equipment in which 90% of the world's penicillin is dehydrated, is apparent in the refinement and convenience of this small unit.

Vacuum Powder Filler

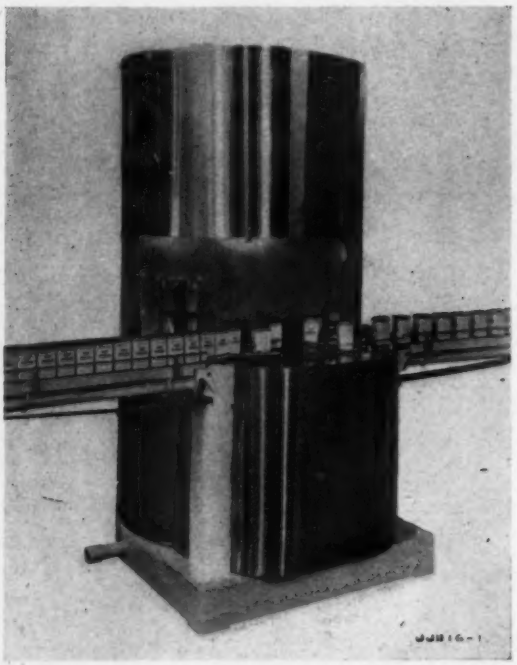
A new Carter vacuum filling machine provides a dust-free method for packing finely powdered dry materials in all sizes of small containers as well as in large drums and barrels.

Manufactured by the Carter Engineering Co., Danville, Ill., the equipment operates speedily in packing materials solidly in the container without agitation and removing from the air the small amount of dust that passes through the screens before it is released.

Airtight containers which withstand high vacuum, such as glass bottles and metal cans, are filled by evacuating the air in the containers and causing the material in the hopper to flow into the packages. The filling head is designed to make an airtight seal at the container mouth. Air is evacuated through two screens located at

opposite sides of the filling head. Air is removed through one screen and admitted through the other. This process, which in most cases is repeated four times, cleans the screens and helps pack the material. The vacuum can be adjusted to suit the product.

Containers which are not airtight or cannot withstand high vacuum are placed in a shroud for filling.



In this case the outside and inside of the container are both under the same pressure.

A single-head unit can fill 10 to 12 containers per minute. The model used by Johnson and Johnson is a 16-head rotary filler with a production speed of 160 to 200 cans per minute, depending on the size of container being filled. Other models have a speed ranging up to 300 per minute.

Cartoning Machines

I was delighted to see at the last Packaging Show, the new Ross automatic cartoning machine made by A. H. Ross Machine Company, Ludlow, Kentucky. This is a smooth, automatic job, very well designed, streamlined and simple to operate. I liked particularly the way adjustments are made. The same company also exhibited their semi-automatic cartoning machine, making Ross the first cartoning machine manufacturer to have a complete line of cartoning equipment.

I have long felt that there should be more competition in this branch of the packaging machinery industry, and with the advent of the two Ross machines, I am sure you will see the sparks flying in the not too distant future.

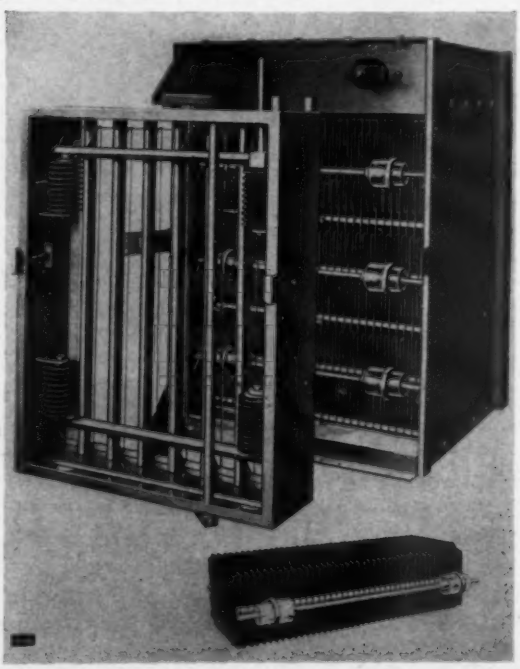
The Electro-Cell

The Electro-Cell, a unit type electronic air filter with removable collector plate assemblies, is one of the latest type now being manufactured by the American Air Filter Co., Inc., Louisville.

The positive and negative collector plates are assembled on cross rods to form horizontal groups which are easy to handle and may be readily removed from the filter casing. This makes possible a number of innovations in construction which simplify installation, improve performance, and assure better maintenance.

Sliding into the filter casing in much the same manner as a desk drawer, plate assemblies can be removed for cleaning and reoiling at convenient water and sewer connections. By keeping a spare set of plates sufficient for one section for use as a replacement, the length of time the filter is out of service is reduced to a minimum and the dirty collector plate assemblies can be cleaned at a time that is most convenient for maintenance personnel. An automatic washing device has been developed permitting collector plate assemblies to be washed in place for installations where manual washing is not feasible.

Standard sections of the Electro-Cell are 2 and 3′ in width with a capacity of 1,000 cfm per unit and range from this minimum to as many sections as are needed for the particular installation. The construction of the filter is such that it eliminates the duplication of top and bottom sections of box-like units when assembled one upon another. This is accomplished by the manufacture of the filter in a variation of heigh's from a minimum of 27″ to a maximum standard height of 15′ by 9″ increments.

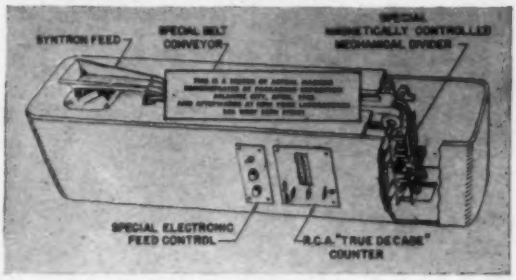


In the larger sizes of the Electro-Cell (6′ or higher), the ionizers are mounted on a bar hinge which swings clear of duct work or adjacent sections giving full access to collector plates. Extending the full height of the section, electrical losses are reduced to a minimum due to fewer wire ends.

Experimental Tablet Counter

The working model of the Wilmotte High-speed Electronic Dispenser displayed at the Packaging Exposition in Atlantic City, April 2 to 5, received wide attention and interest by manufacturers of pharmatical products such as tablets, pills and capsules.

The device comprises the complete mechanical and electrical means of feeding, counting and dispensing the items to alternate packaging positions. Automatic packaging equipment can be synchronized to form an



integraded counting and packaging system. Speed and accuracy characterize this development, which answers a long-standing need of manufacturers of large quantities of small units.

This dispensing equipment is a typical example of the application of electronics to industry through combined electronic and mechanical engineering design, as carried out by Raymond M. Wilmotte Inc. The unit which employs the RCA High-speed, Selective, Electronic Counter as a means of counting the products, was exhibited in the RCA booth at the Exposition. Speeds up to fifty per second, using a 3/8" diameter tablet, were demonstrated, but the Dispenser is capable of handling sizes from 3/16" to 5/8" at speeds up to 100 per second. Items of larger sizes can be handled with special adaptations.

Mr. Raymond M. Wilmotte is nationally known as a pioneer and consultant in radio and in the practical application of electronics to industry. The resources of his organization include a completely equipped laboratory at 236 West 55th St., New York; an electrical and mechanical drafting department, electronic and mechanical engineers and technicians, and a machine shop with skilled personnel.

Associated with Raymond M. Wilmotte Inc. are Jackson and Moreland of Boston, Mass., widely known for mechanical and electrical engineering design; and the Wilmotte Manufacturing Co. of Washington, D. C., which specializes in the construction of electronic and mechanical equipment.

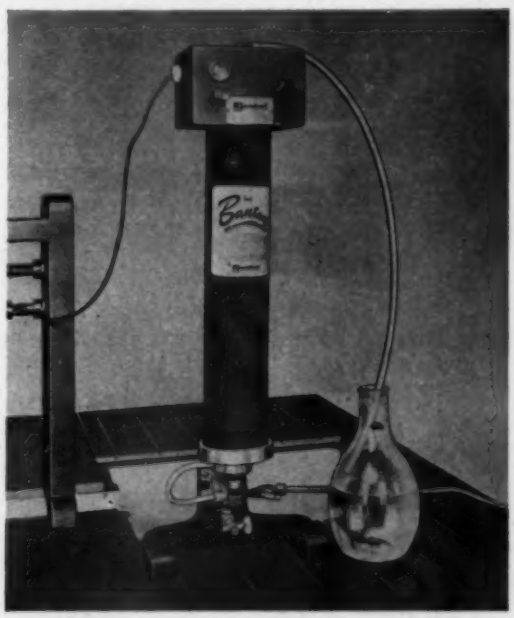
Rotary Vacuum Filtration

The importance of the string discharge in economical continuous filtration, and in handling tough jobs, is one of the many interesting subjects covered in the new Bulletin 101 of Filtration Engineers, Inc., 858 Summer Ave., Newark 4, N. J. The FE compression mechanism, the FE washing mechanism, drum-dryer combinations, repuddling of starches, construction details, and typical applications of FE rotary vacuum filters are also covered in this well illustrated, 16-page, 8½ x 11-in. bulletin.

Demineralizer

To meet the needs of laboratories and industries where the amount of de-ionized water required is not great enough to justify lengthy regeneration processes, the Barnstead Still & Sterilizer Co. have just announced their new Bantam Demineralizer. It employs a single renewable cartridge which contains both cation and anion resins which convert the dissolved salts in the water to their corresponding acids, and then chemically absorb these acids. No heat, electricity, or chemicals are employed in the process. Flow-rate is from 5 to 15 gallons per hour.

The manufacturer stresses the extreme simplicity of operation and installation. Only electrical connection necessary is for indicator light which tells when new cartridge is needed. Plugs into any ordinary outlet and load is only a fraction of a watt. The Bantam can be connected to water supply by rubber tubing or 1/4" pipe. To use it is then only necessary to turn on water supply and collect demineralized water in continuous flow.

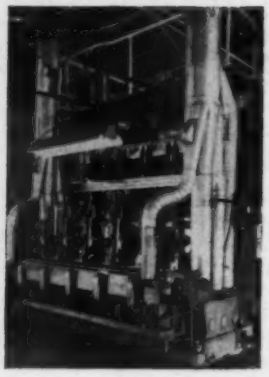


It is claimed that one cartridge will remove 400 to 600 grains of ionizable salts. Thus one cartridge will produce up to 300 gallons of demineralized water, depending upon the hardness of the raw water supply. When resistance of effluence drops to 50,000 ohms the indicator lamp goes out, showing that new cartridge is needed. To replace cartridge it is merely necessary to loosen thumb-screw which holds it in place and insert new cartridge. It is this disposable cartridge feature which makes the Apparatus practical for the small user of de-ionized water.

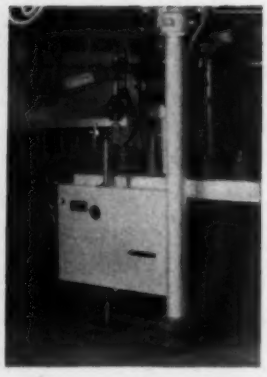
TWO NEW M

GLASS PACKERS BENEFIT FROM LONG EXPERIENCE

Hartford-Empire, preeminent in the manufacture of glassmaking equipment since 1912, as exemplified by the versatile 5-Section I. S. Machine, now offers this pair of efficient glass container handling equipment for glass packers. Results in plants operating high speed, large volume lines show that H-E equipment gives uninterrupted performance and quickly pays for itself.



Here is the famous H-E 5-Section I. S. Machine which produces more containers per mold per minute than any other forming machine in the world.



This H-E Stacker, for taking containers from conveyor and placing them in lehr, also typifies the engineering and construction skill now apparent in the Unscrambler and Pocket Washer.

VIEW OF H-E UNSCRAMBLER INSTALLATION

TYPICAL H-E POCKET WASHER INSTALLATION

Two booklets show more detail on the H-E Unscrambler and H-E Pocket Washer. Both will be mailed immediately upon receipt of your request for them.

FURNACE ENGINEERING • AUTOMATIC BATCH FEEDERS • AUTOMATIC FEEDERS • AUTOMATIC FORMING MACHINES • STACKERS • LEHRS • GLASS CONTAINER HANDLING EQUIPMENT • CONSULTING ENGINEERING AND OPERATING SERVICE FOR ALL PHASES OF GLASS MANUFACTURE AND HANDLING

W MACHINES FOR GLASS

NON-JAMMING UNSCRAMBLER PROVIDES FAST CONTAINER HANDLING

The first unscrambler to completely eliminate jamming, even of the final two converging containers . . . It prevents damaging impacts. It unscrambles shapes as difficult as an eight-paneled ketchup bottle at speed better than 240 per minute. Users report that the unique features of the H-E Universal Unscrambler result in operating economies that completely pay for the equipment within a period of a few months.

As shown at right, an oscillating guide, constantly pressing against the mass of containers moving towards the exit throat, keeps the mass active and prevents arching of jars or bottles as the exit throat narrows.

H-E POCKET WASHER SPEEDS GLASSWARE FILLING, PACKING

Efficiently cleansing glassware at adjustable speeds exceeding any existing requirement, the fully automatic H-E Pocket Washer handles containers so gently that crushing or bruising is avoided. A worm feed picks up containers and takes them to a star wheel which feeds them to chain pockets. Passing around a sprocket, containers are inverted, allowing entrapped debris to drop out. Containers can be preheated. Wide mouth jars can be blown out. No attendant is necessary. Only 10′ x 2½′ of floor space is required for equipment.

HARTFORD-EMPIRE COMPANY

HARTFORD 1, CONNECTICUT

EXACT WEIGHT Scale counting capsules for filling wholesale drug orders in the First Texas Chemical Company, Dallas, Texas.

The Facts about Tablet and Capsule Packaging...

Are you always several packages short of actual known bulk after packaging? You need not be if you package the EXACT WEIGHT way. Simply hand count the first package and place in the left scoop. For further packages add tablets, capsules, or powders in the right scoop until the indicator shows EXACT WEIGHT. The operation is strictly mechanical, fast, inexpensive and accurate to less than 1%. Packaging costs are cut 85% says one chief chemist. And further saving, you get more packages from bulk too.

EXACT WEIGHT Scale equipped with two open scoops. Expressly designed for tablet and capsule counting by weight. Scoops come in three sizes and can be ordered to fit the operation. Scale capacity is also subject to specifications for the counting task involved.

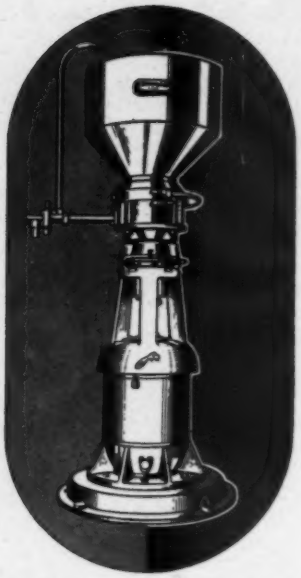
INDUSTRIAL PRECISION

Exact Weight Scales

THE EXACT WEIGHT SCALE COMPANY

950 West Fifth Avenue, Columbus 8, Ohio

Dept. AK, 783 Yonge St., Toronto, Canada



TWO PROCESSING MILLS IN ONE

1. *An Eppenbach High Speed Wet Grinding and Colloid Mill* will reduce the size of solid particles to microscopic dimensions and effect their instantaneous dispersion in fluid or plastic materials as consecutive operations in the same cycle.

2. Operation of the EPPENBACH COLLOID MILL requires neither training nor special skill—merely attention to simple directions. A calibrated dial registers adjustment of clearance between milling surfaces thus assuring higher uniformity of treatment.

EPPENBACH COLLOID MILLS are available in laboratory and production sizes. Capacities range from ½ to 3600 gallons per hour or higher. The principle of operation is the same for all sizes; therefore performance and capacity can be accurately predetermined by experiment with a laboratory unit.

EPPENBACH COLLOID MILLS can be adapted for pressure feed of viscous and semi-plastic materials. They are easy to dismantle for cleaning and sterilizing.

Write for Catalog No. 401 describing our equipment in detail.

EPPENBACH, Inc., 44-10 11th Street
Long Island City 1, N. Y.

EPPENBACH INC.

Processing Equipment for Over 30 Years

The Newly Enlarged Manufacturing Plant and Foundry owned by the Alsop Engineering Corporation, Milldale, Connecticut.

PROGRESS . . . . .
In Filtration and Agitation

The constant development in Filtration and Agitation pioneered by The Alsop Engineering Corporation, has not come as a result of chance but rather, from the knowledge and skill accumulated over the past 25 years. The ever-lasting experimenting, improving and searching for new applications have naturally resulted in progressive advancement and refinement in the application of Filtration and Agitation.

Alsop Engineers take pride in their ability to meet the demands of industry in designing and manufacturing better filters and mixing units. There's an Alsop *"Sealed-Disc"* Filter and *"Hy Speed"* Agitator for practically every industrial need. May we suggest that you consider the many advantages of using Alsop Agitators and Filters for your liquid processing job.

OUR LATEST MODEL FILTER FOR BRILLIANCE AND CLARITY

We invite you to use our Laboratory facilities, send complete details of your filtration and agitation problems to us. We shall be pleased to let you have our report and recommendation promptly. Why not write today, there's no obligation.

25 Years of
FILTRATION & AGITATION
PIONEERING

ALSOP
ENGINEERING CORPORATION
Filters · Filter Discs & Sheets · Mixers · Agitators
106 Cass Street, Milldale, Connecticut

SEAMLESS

THE ONLY ONE OF ITS KIND IN THE WORLD . .

HUBBERT

STAINLESS STEEL KETTLES FOR 1946

ARE AVAILABLE NOW!

COMPARE

1. Seamless inner and outer shells . . . no welds to crack or corrode.

COMPARE

2. Safe . . . no chance for "blown" inner shells at rated working pressures . . . ample metal thickness.

COMPARE

3. Sanitary . . . no cracks or depressions for dirt to cling to . . . easy to clean and to keep clean, inside and out.

COMPARE

4. Smart appearance . . . 1946 designs. Up to the minute in every respect.

COMPARE

5. Scientifically engineered for efficient cooking and even heat distribution. Proper working height. Perfect all-around performance.

Originators of the Seamless Drawn Stainless Steel Kettle

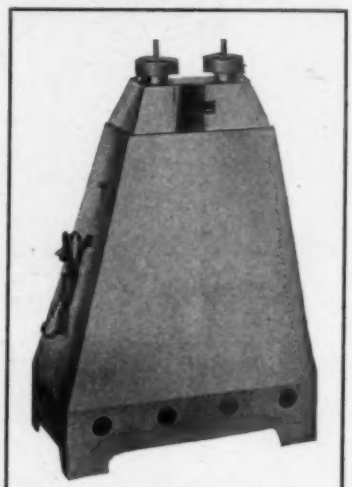
Watch for new developments—Sanitary Valves and Stirring Mechanisms—soon!

B. H. HUBBERT & SON, Inc.
Manufacturers
1300 Block South Ponca Street
BALTIMORE 24, MARYLAND

EVERY HU[illegible]ERT SEAMLESS DRAWN [illegible]TAINLESS STEEL KETTLE EVER [illegible] ACTIVE DUTY TODAY

PORTABLE AIR CLEANING UNIT

Semi-Automatic



The E-Z TWO-TUBE CLEANER

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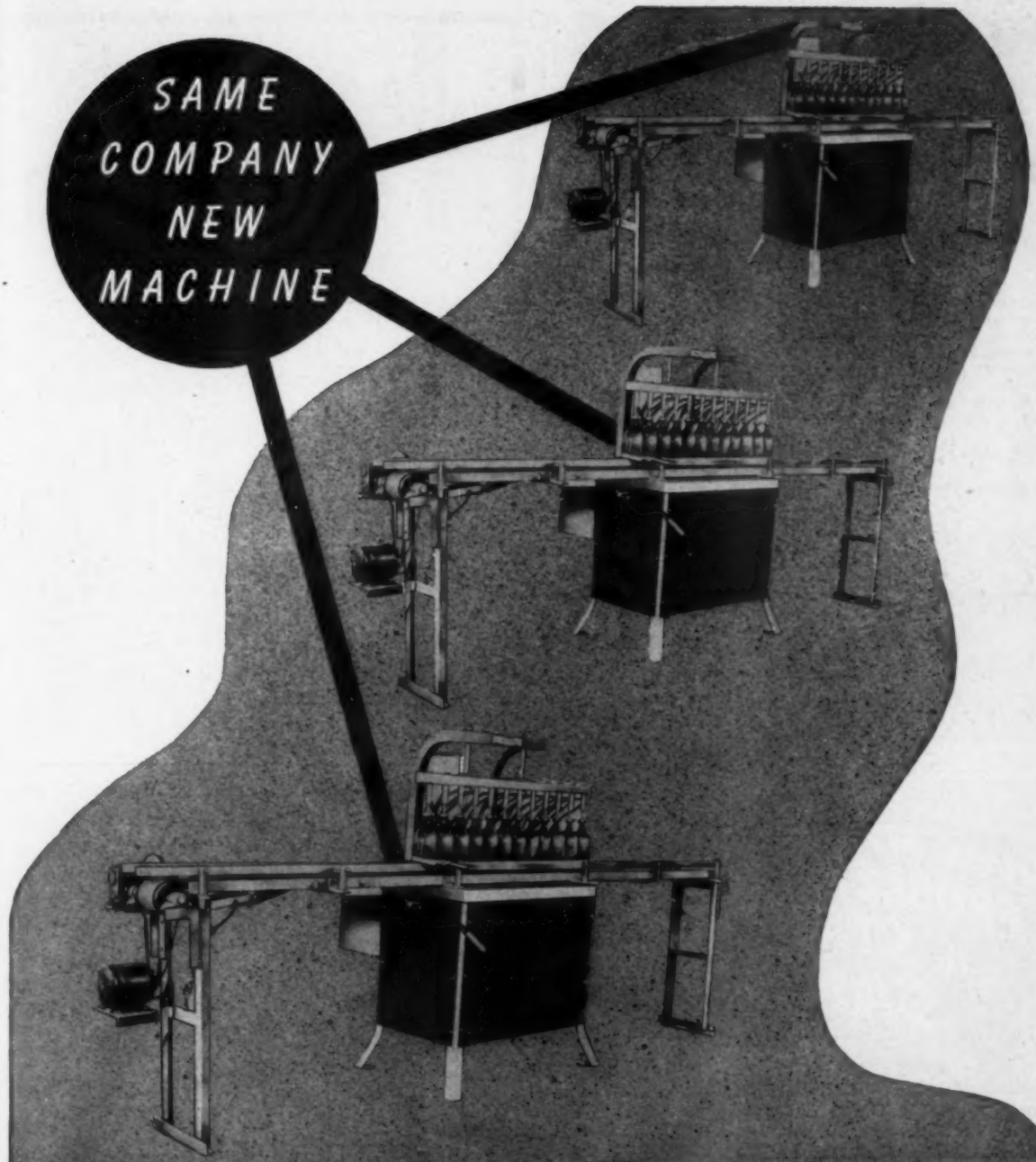

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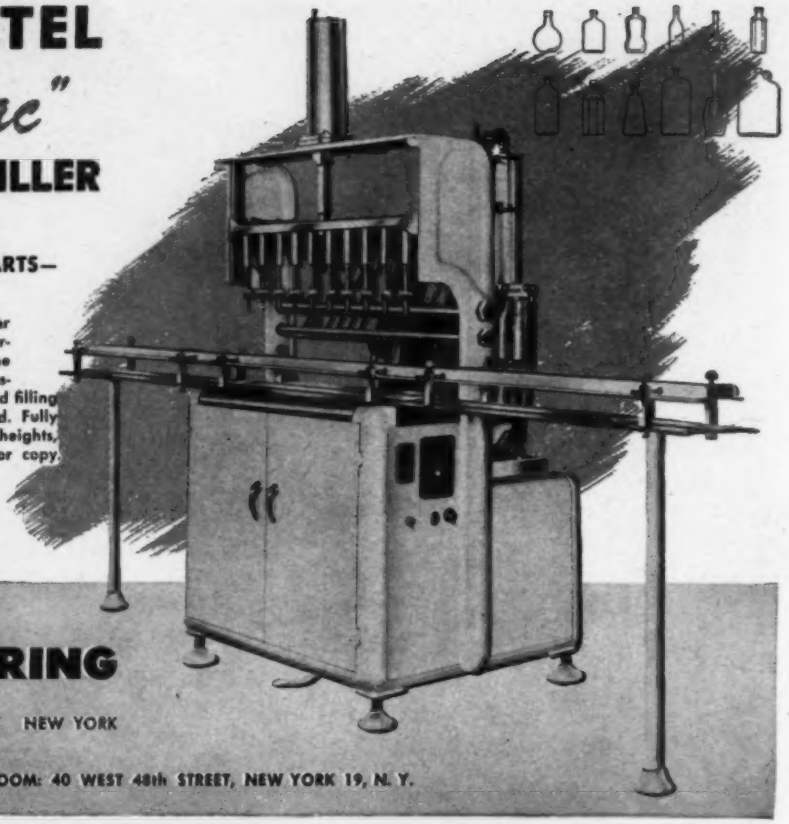

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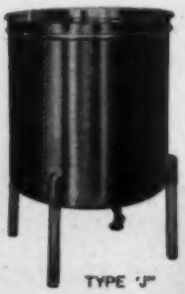

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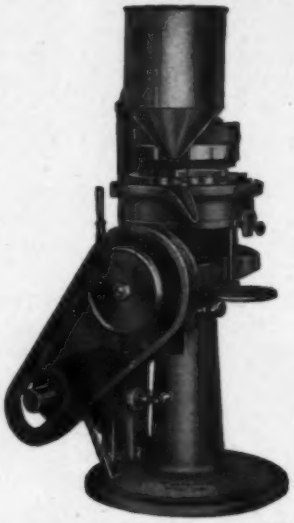

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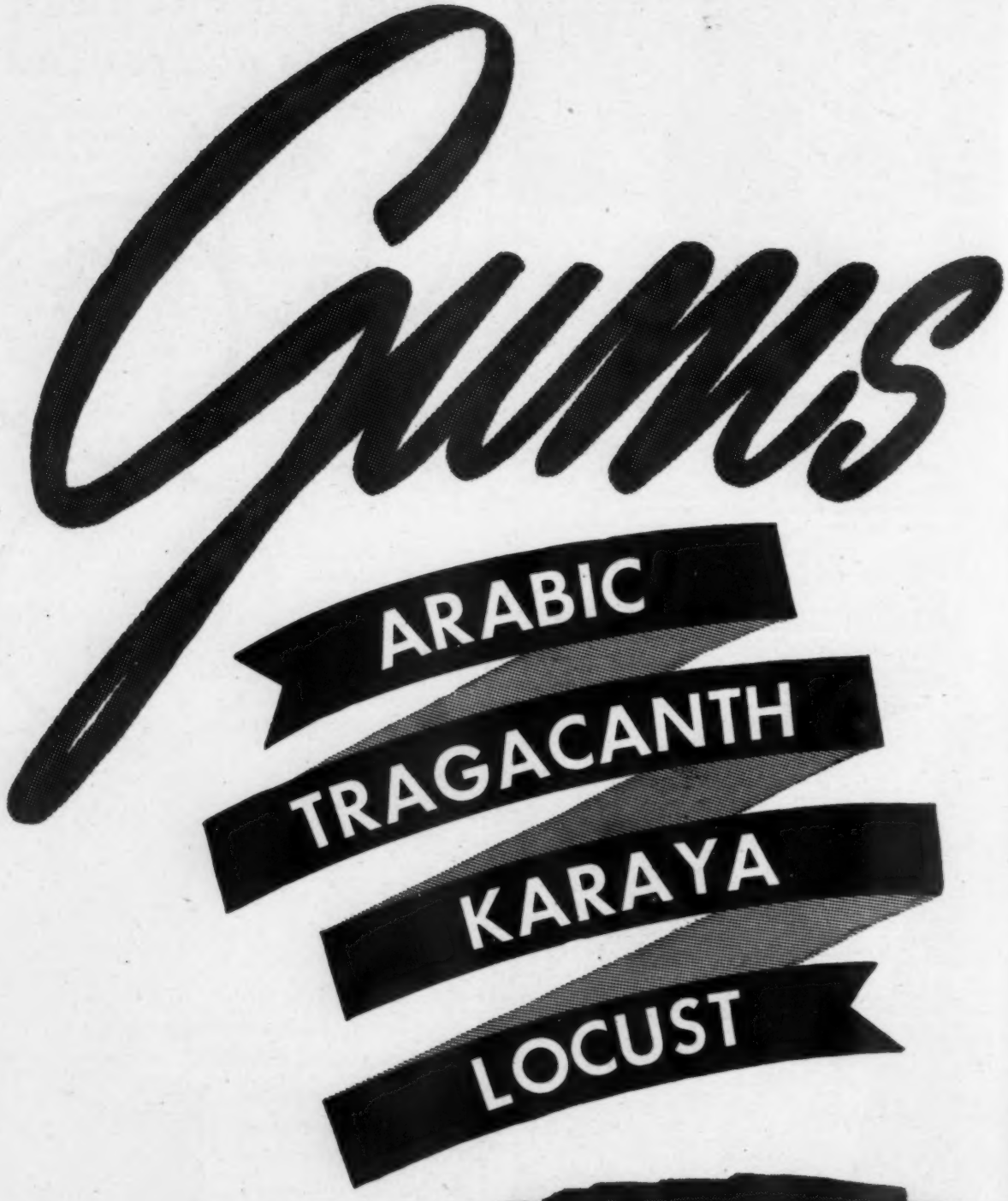

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Industry's Books

New Drugs, by Arthur D. Herrick, author of "Drug Products: Labeling, Packaging, Regulation" and "Food Regulation and Compliance," 303 pp., Revere Publishing Co., New York, $4.

The purpose of this book is to provide the information which will enable those concerned in any way with drug therapy to become acquainted with the responsibilities involved in the release of new drugs to the public. Here the important facts are properly collected and presented in logical explanation; the result is a work that should be a "must" in the libraries serving drug manufacturing personnel, advertising counsel, the pharmacist, and the physician. Here is an adequate source of information concerning the laws and other procedures and devices set up to govern the proper use of drugs.

The Electron Microscope, An Introduction To Its Fundamental Principles and Applications, by E. F. Burton, Head of the Department of Physics, and Director of the McLennan Laboratory, University of Toronto, and W. H. Kohl, Formerly Chief Engineer Rogers Electronic Tubes Ltd., Toronto, Second Ed., 325 pp., Illus., Reinhold Publishing Corp., New York, $4.

This book addresses itself essentially to the non-technical reader who is nevertheless interested in modern techniques. It aims at presenting the physical principles upon which the operation of the electron microscope is based, without any assumptions in regard to the technical knowledge of the reader. This book should appeal not only to laymen and advanced high-school students, but also to members of various professions, in particular those in which the electron microscope has made, or promises to make, a considerable contribution in specialized research.

Organic Preparations, by Conrad Weygand, Professor at the University of Leipzig, Translated and Revised from the German Text, 534 pp., Interscience Publishers, New York, $6.

This volume is a translation of Part II, "Reaktionen," of Conrad Weygand's Organisch-chemische Experimentierkunst, published in Leipzig in 1938. Laboratory procedure in organic chemistry can be presented from various viewpoints. In this book it is treated as an experimental art, which, in view of the wide scope of the material to be included, is the only way or organize all the pertinent facts in a restricted space. The arrangement follows the natural course of laboratory work in organic chemistry, which usually begins with construction of apparatus and, after a variety of reactions have been investigated, concludes with analysis and physical identification. Contents: Chapters I—Formation of Carbon-Hydrogen Bonds; II—Formation of Carbon-Halogen Bonds; III—Formation of Carbon-Oxygen Bonds; IV—Cleavage of Carbon-Oxygen Bonds; V—Formation of Organic Derivatives of Trivalent Nitrogen; VI—Cleavage of Carbon-Nitrogen Bonds; VII—Formation of Carbon-Pentavalent Nitrogen Linkages; VIII—Carbon-Divalent Sulfur Bonds; IX—Carbon-Hexavalent Sulfur Bonds; X—Unsaturated Carbon Bonds; XI—Formation of Carbon-Carbon Bonds—Part One: By Addition, Part Two: By Replacement; XII—Fisson of Carbon-Carbon Bonds; XIII—Rearrangements of Carbon Compounds with the Exception of Stearic Rearrangements.

Studies In Biophysics, The Critical Temperature of Serum (56°), by P. Lecomte du Nouy, Director of the Laboratory of Molecular Serology, University of Paris, 185 pp., Illus., Reinhold Publishing Corp., New York, $3.50.

All biological and medical problems involve phenomena of a physico-chemical nature which, until now, have often been neglected. The author attempts to interpret some of the new facts brought to light by means of a hypothesis concerning the structure and the behavior of the complex lipido-proteinic "molecule" of serum. This hypothesis proved to be useful in planning further experiments which resulted in the discovery of more unknown phenomena. The experimental researches condensed in this book constitute a systematic effort to pave the way so that it will eventually be possible to tackle the still mysterious problems of immunity by means of physico-chemical and physical methods. A certain number of new facts are described which throw some light on the fundamental problems relating to the mechanism of immunological reactions. The author succeeds in demonstrating that, by refining old techniques, or creating new ones, and by confronting the results critically, it is possible to open up unsuspected fields of research.

Chemical Crystallography, by C. W. Bunn, 422 pp., Oxford University Press, New York, $7.50.

Crystallography is playing an increasingly important part in the chemical laboratory and in the development of chemical theory. The applications range from the identification of solid substances by microscopic or X-ray methods, through the determination of molecular weight, size, shape, and symmetry, to the detailed study of stereochemistry by the determination of precise atomic positions in crystals. This book describes the methods which have been developed for these purposes, and is written by one who has been concerned with these applications in a large industrial chemical laboratory for many years. No previous knowledge of crystallography on the part of the reader is assumed. The book includes an account of the elements of crystal morphology and optics, the interpretation of various types of X-ray diffraction photographs, and the location of atoms both by the method of trial and error and by Fourier series methods.

Technique des Produits de Beaute, by R. M. Gattefosse, and Dr. H. Jonquieres, 229 pp., Paper Cover, Librarie des Sciences, Girardot & Cie, Paris.

The authors of this work are well-known to the trade in this country through their previous published books on perfume and cosmetic formulation and manufacture. This new 1946 edition of Produits de Beaute brings the subject up-to-date since the previous edition was published in 1936. Many additional and new formulas are included. It should prove very valuable at this time since most of the literature on cosmetic formulation and production is temporarily out of print. Available in French only.

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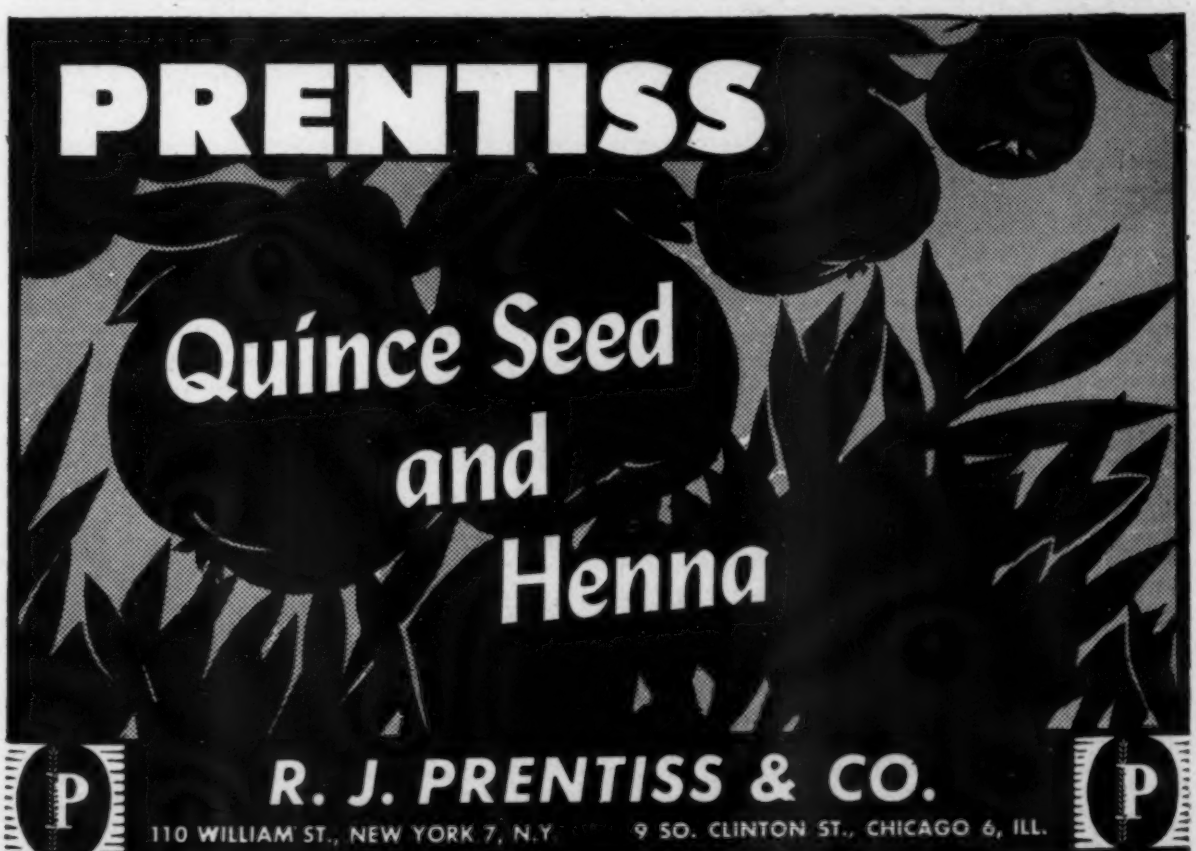

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Despite the assembly of clear-cut evidence that the restriction of common salt and of sodium in any form is much more important than is the restriction of water in cases of dropsy, the practical application of this idea has been extremely slow. In a preliminary report covering five cases, W. C. Bridges, E. O. Wheeler and P. D. White (*New England J. Med.* 234:573,1946) show that a low-sodium diet and free fluid intake can be of definite value in treating patients with congestive heart failure. They found that restriction of sodium to levels of 700 to 1000 mg. (equivalent to 1.75 to 2.63 Gm. of sodium chloride) every twenty-four hours is helpful in the control of certain cases of congestive heart failure in which digitalis and mercurial diuretics are ineffective or not entirely satisfactory. Water may be given freely, provided that the sodium intake is held to a minimum. Large water intakes may be of advantage in the elimination of edema, but this is probably a temporary phenomenon. This regimen does not replace rest, digitalis and diuretic therapy but is a valuable adjunct to the treatment of obstinate congestive failure.

Sodium Caprylate for Dermatomycosis

Sodium caprylate offers a new and effective treatment for dermatomycosis of the feet, according to the report of E. L. Keeney and his associates (*Bull. Johns Hopkins Hosp. 77:411,1945*). They found that 10 per cent sodium caprylate ointment *in vitro* completely inhibited the growth of *Trichophyton mentagrophytes*. It was significantly superior to propionate-propionic acid, 5 and 10 per cent undecylenate-undecylenic acid and one-half and full strength Whitefield's, 10 per cent ammoniated mercury, 5 per cent sulfathiazole and 0.5 per cent tyrothricin ointments. The clinical results obtained with 10 per cent sodium caprylate ointment in the treatment of dermatomycosis of the feet were significantly superior to results previously obtained by employing either propionate-propionic acid or undecylenate-undecylenic acid ointments. The new ointment allays itching and does not sting or burn those areas of the skin where the epithelium has been deneeded. No irritation or sensitization from the daily and protracted use of the sodium caprylate ointment has been noted.

Thiamine Deficiency and Uterine Cancer

The concurrence of thiamine deficiency and high estrogenic activity in a number of patients with menorrhagia and uterine cancer suggests to J. E. Ayre and W. A. G. Bould (*Science* 103: 441,1946) that some causal relationship may exist between the vitamin lock, the high hormone level and the pathological condition. On the basis of experimental evidence, as well as their own clinical observations, they reason that the chain of events leading to cancer may start with the thiamine deficiency. Such a deficiency may damage the lever so that this organ cannot inactivate the femal hormone. Accumulation of estrogenic substance might be responsible for the changes causing menorrhagia and, if allowed to persist might, through its growth-stimulating action, lead to an actual cancer. If this hypothetical mechanism proves to be correct, the finding of a combination of low thiamine value and high estrogen level could be recognized as a dangerous precancerous linkage. Thus there would be available a means for correcting the responsible factors and possibly prevent the formation of a uterine cancer.

Vitamin D Intoxication

It has long been known that irradiated ergosterol in sufficient doses may produce toxic effects. It has been demonstrated repeatedly that experimental animals can be killed by sufficiently large doses of this product and that the outstanding pathologic finding in these animals is diffuse metastatic calcification involving chiefly the arterial vascular system and the kidneys. That these advanced changes can also occur in the human being and lead to death is not as well known. Because of the increasing tendency for the use of large doses of vitamin D in the treatment of a variety of conditions, J. M. Bauer and R. H. Freyberg (*J.A.M.A.* 130:1208, 1946) felt it worth while to report a fatal case resulting from the use of this drug and to review 5 previously reported cases of metastatic calcification in man resulting from its use.

On the basis of their own experience and that of others, these investigators conclude that concentrated vitamin D preparations, especially when administered in large doses, should be considered as potentially toxic drugs. Their administration should be carefully supervised and the recipient should be kept under close observation in order to detect symptoms of toxicity. When given in excess of tolerance, characteristic symptoms result which should be recognized in order to forestall more serious consequences. In the human being death may occur, even in the adult, as a result of vitamin D intoxication causing calcification of organs and arteries. The intoxicating dose depends on many factors and varies greatly in different persons and at different times in the same person.

Caffeine and Gastric Ulcers

In an experimental study of the alleged role of caffeine as a factor in the causation of gastric ulcer, G. Giddings, W. Wynn and J. Haldi (*Gastroenterology* 5:210, 1945) found that administration of 75 mg. of caffeine per kilogram of body weight by stomach tube to 26 cats daily for twenty-one days did not produce erosions or ulcers in the stomach. Injection of the same amount of caffeine daily intramuscularly in a mixture of beeswax and oil for the same length of time likewise failed to produce erosions or ulcers. Ulcers were produced in cats by caffeine only when the dose was large enough to kill the animal. Thirty-four albino rats were given 75 mg. of caffeine per kilogram of body weight by stomach tube over a period of eight to twenty weeks. In only 3 ani-

mals were there any alterations in the stomach that might be regarded as erosins or ulcers. The structural changes in these instances were microscopic. These experimental data do not offer valid reason for the conclusion that caffeine-containing beverages such as coffee or tea play a part in the pathogenesis of gastric ulcer in man.

Penicillin vs Agranulocytosis

Probably the most serious implication of administering certain drugs, like thiouracil, is the possibility of inducing agranulocytosis. Patients with agranulocytosis do not die from the suppression of their bone marrow but from the bacterial invasion which commonly develops in the absence of granulocytes. In a body robbed of its leukocytic defenses an overwhelming sepsis may occur. In such cases minor lesions of the skin and mucous membrane quickly spread and bacteria invade the blood stream. The toxemia from this resulting sepsis depresses still more the function of the bone marrow and may prevent spontaneous recovery. Pneumonia and other terminal infectious lesions precede death. Prior to 1942 physicians attempted chiefly to stimulate the activity of bone marrow by such leukopoietic agents as pentose nucleotide, yellow bone marrow, liver extract and blood transfusions. But these remedies too frequently proved inadequate and the mortality rate in cases of agranulocytosis was high.

In the new approach to the problem, say E. W. Boland, N. E. Headley and P. S. Hench (*J.A.M.A.* 130: 556, 1946) treatment should be directed toward the prevention and control of secondary infection rather than toward the stimulation of bone marrow activity. If infection and toxemia can be controlled, the bone marrow may take care of itself and recover spontaneously. Hence, the recent employment of sulfa drugs and especially penicillin has greatly improved the treatment and prognosis of agranulocytosis.

The literature records 7 cases of agranulocytosis successfully treated with sulfonamides, but because these drugs may themselves cause the disease, penicillin would seem to be the remedy of choice. So far, 11 cases of agranulocytosis, including the one presented in great detail by Boland and his associates, have been treated with penicillin. Prompt recovery has occurred in every case. This represents a notable improvement in the treatment of the condition and allows for much greater optimism in prognosis than has heretofore been possible. In some of these cases leukopoietic agents were used in conjunction with penicillin, but the current trend is to rely on penicillin alone. Experiences to date indicate that penicillin constitutes the most potent remedy at hand for the prevention or control of the serious, potentially fatal complication of agranulocytosis.

Trilactic Treatment for Amebiasis

In the *Review of Gastroenterology* (12:-425, 1945), B. Sokoloff notes that even very dilute solutions of lactic acid impede the multiplication of protozoa, including amebas. Because ingested lactic acid is actively absorbed in the small intestine and therefore is of little use in the treatment of infections of the large intestine, a special anhydrous form of lactic acid, trilactic, was developed. Trilactic dissolves in water slowly and for this reason reaches the colon and cecum without being affected greatly by the gastric juice. During the last five years trilactic has been tested on a number of patients with amebic infection. In many instances they received the trilactic treatment after emetine had failed to eliminate completely the pathogenic ameba, or when the patient had experienced a toxic reaction from this drug. In a few instances trilactic was administered after protracted iodine therapy when stools still showed presence of the cysts. Such combined therapy showed the most satisfactory results not only in the complete elimination of the ameba but also in the prompt restoration of the normal bowel movement. Sixty-two patients affected with acute and chronic amebic infections have been treated with trilactic. Complete recovery was obtained in 36, improvement in 15 and negative results in 11 patients.

Fluorescent Drugs Traced Through Body

By tracing drugs through the body it is possible to obtain considerable information regarding their distribution, concentration and excretion. As a new phase of pharmacological investigation, such tracer methods have already yielded valuable data. To the few methods already in use may be added the technic developed by C. H. Taft and reported in *Science* (103:340, 1946). He has shown that it is possible to trace the passage of a fluorescent drug through the body with the use of ultraviolet light. In his work, he used quitinine, a highly fluorescent quinine derivative that responded very efficiently to ultraviolet light. He injected it under the skin of a considerable number of toadfish, and each day killed and dissected a fish, exposing its internal organs to ultraviolet radiation. He found that the drug, at first rather generally distributed throughout the body, presently concentrated most strongly in the liver and to some extent also in the kidneys.

Present Status of Fluorine and Dental Caries

Because of the toxic nature of fluorine, most investigators have been very cautious in their approach to the use of this chemical to prevent dental caries. However, others have been less conservative so that the prospect of the fantastic exploitation of fluorine in dental caries control is a menacing possibility. It is for this last reason that P. Jay has undertaken the job of bringing this rapidly expanding subject up to date. In his report in the *Journal of the American Dental Association* (33: 489, 1946), Jay presents a very comprehensive review of the subject and arrives at the following conclusions: It is definitely established that fewer carious dental cavities occur in persons continuously resident in fluoride areas during the first eight years of life than in persons residing in fluoride-free areas. Their teeth contain more fluorine than the teeth of persons in fluoride-free areas and Lactobacilli do not flourish in their mouths. There is some indication that fluoride topically applied, may reduce the incidence of dental caries in children. From a public health standpoint, the treatment of domestic water with fluoride appears hopeful. Studies now underway should determine the efficacy of this type of treatment. Should the treatment of public water supply prove beneficial, children in rural areas might be benefited by internal medication with doses of sodium fluoride comparable to the amounts ingested in fluoride areas, or about 2 mg. daily. On the basis of information now available, the use of fluorides in dentifrices or mouthwashes is not justified.

Compounder's Corner

Insect Repellents from Europe

Among the formulas unearthed by British technical groups investigating German pharmaceutical developments were several insect repellents prepared at the I. G. factories. According to the report in the Pharmaceutical Journal *156:172, 1946 among the substances examined was the mosquito repellent "Presinol" or "Mipax" made according to the following formula:*

Cinnamyl alcohol	**100.0 Gm.**
Ethyl alcohol (96%)	**894.0 Gm.**
Calcium chloride (90-93%)	**60.0 Gm.**
Magnesium chloride	**40.0 Gm.**
Melissa oil	**1.0 Gm.**
Geraniol	**0.5 Gm.**
Water	**106.0 Gm.**

The addition of calcium chloride was thought to extend the repellent time of such substances as cinnamyl alcohol, coumarin, esters of phthalic acid, etc. It was found for example, that while a 10 per cent solution of cinnamyl alcohol in ethyl alcohol was repellent for three hours, the addition of 10 per cent calcium chloride extended the time to nine hours. A simplified formula contained:

Cinnamyl alcohol	**100.0 Gm.**
Calcium chloride	**60.0 Gm.**
Ethyl alcohol	**900.0 Gm.**
Water	**100.0 Gm.**

Another mosquito repellent preparation considered to be more effective than diethyl phthalate had trichloracetylchlorethylamide as the active ingredient, as follows:

Trichloracetylchlorethylamide	**7.50**
Calcium chloride	**1.25**
Magnesium chloride	**1.25**
Absolute alcohol	**60.00**
Water	**30.00**

A later issue of the Pharmaceutical Journal (156:219,1946) *carries a description of the midge repellent developed by the Scientific Advisory Committee of the Department of Health for Scotland. It is made from:*

Lanette wax SX	**5.0 Gm.**
Triethanolamine	**9.0 cc.**
Oleic acid	**27.0 cc.**
Dimethylphthalate	**100.0 cc.**
Water	**100.0 cc.**

The emulsion, smeared on the exposed parts, will ward off midges for at least two hours. It is not injurious to the skin; there may be some slight tingling when it is first applied and afterwards when washing the face. The emulsion should not be allowed to get into the eyes nor should it come in contact with tortiseshell or plastic spectacle frames.

Liquid Lip Preparations

In the second part of his discussion on lipsticks, S. P. Jannaway (*Perfumery & Essent. Oil Rec.* 37:40, Feb. 1946) takes into consideration preparations which he calls liquid lip stains. Such liquid make-up is usually one of three main types: (*a*) a modified liquid version of lipstick, being an emulsion that deposits a colored waxy or fatty film on the lips; (*b*) a fundamentally hydro-alcoholic lotion that gives practically no film but dyes the lips direct; and (*c*) the more modern modified nail lacquer which leaves a plasticized cellluose or similar type of tinted film on the lips.

A basic formula to illustrate group A is as follows:

Triethanolamine oleate	**15.0**
Glycerine	**10.0**
Water	**10.0**
Beeswax	**10.0**
Mineral oil, white	**40.0**
Scarlet, oil-soluble	**2.5**
Perfume compound	**q.s.**

The two chief objections to such preparations are their failure to do a really good coloring job and the fact that they do not leave a lustrous, uniform, homogeneous and adherent film. Moreover, like all liquid lip make-up items, they are considerably more difficult to apply than the conventional lipstick.

Group B may be illustrated by a formula that contains:

Erythrosine	**5.0 Gm.**
Rose water	**400.0 cc.**
Alcohol (95%)	**100.0 cc.**
Glycerine	**500.0 cc.**

This is actually an old-style liquid rouge. The chief fault with this type of preparation as a lip make-up item is that it lacks body and leaves no protective, emollient film on the lips.

Undoubtedly Group C is the most important, both actually and potentially. Members of this group rely upon a suitable film-forming agent and solvent, together with dyestuff, plasticizer and other auxiliary materials. The chief objective when compounding is to ensure the formation of a film of the desired consistency, thickness, adhesiveness, plasticity and water-resistance. Such a film should dry out rapidly on the lips and should not readily peel or crack. It must also be uniformly tinted.

Film-forming agents include nitrocellulose, ethyl and propyl celluloses. Methyl cellulose and polyvinyl alcohol have also been suggested. Alcohol is the chief solvent, with other solvents sometimes added to improve solubility or cut down the drying rate. Added water causes precipitation and cannot be included in standard formulas of this type. However, one published polyvinyl alcohol formula does contain a high proportion of water, and it is suggested that other water-soluble agents and resins may be suitable for experimentation. Plasticizers may include castor oil, glycerine, butyl stearate, dibutyl phthalate, etc. Colophony or rosin improves the texture and adhesiveness of the film as also does a good quality bleached, dewaxed shellac. The soluble dyes used include rhodamine, fuchsine, saframine and bromo acid.

Two illustrative formulas are included as a basis for experiments in preparing such products:

Ethyl cellulose	**3.0**
Rosin, W.W. grade	**2.5**
Shellac, bleached de-waxed	**1.0**
Castor oil, deodorized	**4.5**
Petroleum ether	**15.0**
Alcohol	**72.0**
Rhodamine B	**1.0**
Saframine	**0.5**
Saccharin	**0.05**
Perfume/flavor	**0.5**

Nitrocellulose	**2.5**
Ethyl acetate	**3.0**
Acetone	**5.0**
Rosin, W.W. grade	**3.0**
Castor oil, deodorized	**6.0**
Diethylene glycol	**1.5**
Tincture benzoin	**1.0**
Alcohol	**76.0**
Rhodamine B (with other soluble dyes to shade)	**1.5**
Perfume/flavor	**0.5**

The FACTS Behind the Glycerine Shortage

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New Glyco Cosmetic Manual

A new cosmetic manual has been issued by Glyco Products Co. Inc., 26 Court St., Brooklyn 2, N. Y. With its contents divided into seventeen sections, the manual provides a chapter on cosmetic formulation and one on emulsions, followed by chapters devoted to the manufacture of a variety of cosmetic creams.

Shampoos

In considering shampoos, says E. G. Thomssen in his very comprehensive review of such preparations in the March and April 1946 issues of *Soap and Sanitary Chemicals*, it is customary to classify them in two categories, soapless and soap types. The shampoo soaps come in cake, powder, jelly and liquid form. Soapless shampoos are most generally liquid, although powdered and jelly types are found on the market in limited number. All the soap shampoos lather whereas the soapless type may or may not form a lather. While the soapless type of shampoo is slowly gaining popularity in certain directions, the soap type is still apparently preferred by most consumers.

Commanding 90 per cent of the soap shampoo market are the products based on ordinary liquid coconut oil soap, containing around 20 per cent anhydrous potash coconut or high lauric acid soap. This type of shampoo lathers readily and profusely in all types of water, even sea water. It stimulates the scalp, cleanses well and rinses easily. Then too, the slight alkalinity found in this type of soap is held to be of value in combating dandruff and seborrhea. The lather is heavier than that produced by wetting agents, which is a property preferred by most users. A recent survey of users of shampoos, both male and female, indicates that liquid coconut oil soap is the most generally preferred of all hair cleansing preparations. Besides coconut oil liquid shampoos, soapy shampoos are made from olive oil, sesame oil, soy bean oil and other vegetable oils, either alone or most generally in combination with some high lauric acid oil. Those usually form a heavier, but not as easily rinsing lather as the coconut oil types.

Coconut Oil	**130 lbs.**
Potash Lye 28° B.	**135 lbs.**
Borax	**2 lbs.**
Water	**220 lbs.**
Glycerine, Alcohol (S.D. 3A) or Propylene Glycol.	**50 lbs.**
Perfume	**3 lbs.**

Adding 6 drams of oil of pine tar and 1 dram of oil of tar to each gallon of this preparation yields a tar shampoo.

Where a high proportion of alcohol is desired, the following rather simple formula is suggested:

Coconut Oil	**45 lbs.**
Potash Lye 34° B.	**30¾ lbs.**
Alcohol (S.D. 3A)	**44 lbs.**
Perfume	**10 oz.**

A heavy shampoo, made without coconut oil, consists of:

Olive Oil	**88 lbs.**
Corn Oil	**22 lbs.**
Alcohol	**92 lbs.**
Glycerine	**18 lbs.**
Potash Lye 39° B.	**33 lbs.**

To make these shampoos, first saponify the oils with the potash lye and add the borax dissolved in the water. Continue mixing, while hot, until the soap is in solution. If alcohol or sugar are added do not make the addition until the temperature drops to around 115°F. The perfume should also be added at this point as well as any color. When the solution is complete and the charge is cool, it is pumped to storage tanks for clarification.

With the observation that shampoo jellies or pastes are not as popular as they were in the past, several typical formulas are presented; including the following transparent shampoo jelly:

Coconut Oil (Low free fatty acid)	**256 lbs.**
Potash Lye 28° B.	**274 lbs.**
Glycerine	**25 lbs.**
Alcohol S.D. 3A	**15 lbs.**
Perfume	**3 lbs.**

Soap in powder form is not too popular. Perhaps the most widely used shampoo powder is henna shampoo, usually packaged in envelopes sufficient for one shampoo. Two popular shades are the golden and the silver. One gives a reddish cast to the hair, the other whitens it. Formulas for these are:

Golden Shampoo

Toilet Soap Powder	**25 lbs.**
Borax	**22 lbs.**
Henna Powdered	**3 lbs.**
Aubepine Powder	**1 oz.**

Silver Shampoo

Toilet Soap Powder	**28 lbs.**
Borax	**22 lbs.**
Aubepine Powder	**1 oz.**

A typical soapless shampoo liquid has this composition:—

Sulfonated Castor Oil (75%)	**60 lbs.**
Sulfonated Olive Oil (75%)	**20 lbs.**
Mineral Oil (Light)	**3 lbs.**
Distilled Water	**14 lbs.**
Glycerine	**3½ lbs.**
Perfume	**½ lb.**

This product can be put together very simply as the ingredients mix readily. It is advisable to mix the perfume with the glycerine and add the mixture to the rest of the ingredients which have already been blended together.

In recent years the foaming types of soapless shampoos has outdistanced the soapless-latherless-sulfonated-oil-type. The foaming type possess an eye appeal in forming copious lather, which many consumers prefer for hair washing. The new foaming shampoos consist of surface active or wetting agents. They have the further advantages of lathering in hard water and rinsing easily, as well as not leaving lime soap deposits on the hair if hard water is used. They are increasing in popularity because they find ready consumer acceptance. Although such shampoos are most popular in liquid form, it is possible to prepare them as jellies or powders.

Because of the variation in composition and physical properties of the many surface active or wetting agents used in making this kind of shampoo, Thomssen feels that specific formulas are rather difficult to present. In general, it may be stated that the percentage of wetting agent in this type of liquid shampoo may vary from 10% to 75%. The amount of water present, may be from 25% to 90%. Since these shampoos are freezable, it is advisable to add a freezing point depressant like alcohol, glycerine or propylene glycol. This may vary from 10% to 20%. When a sulfonated oil is combined with the surface active agent this may comprise from 25% to 75% of the total percentage of wetting agent and sulfonated oil present in formula. Perfume is added in the proportion of about 8 oz. per 100 lbs. of finished shampoo. When it is desirable to make the solution heavier or more viscous, other ingredients are added. These consist of mucilages made from gums, the alginates or methyl cellulose, glycerine, fatty alcohols like cetyl alcohol, lecithin and mineral oil. Care is necessary in making such additions as the gum solutions particularly are apt to be thrown out of solution. The quantity used is usually 5% or below.

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Perfumer's Shelf

Oil Ocimum Gratissimum

According to a note in *Soap, Perfumes and Cosmetics* for April 1946, *Ocimum gratissimum* Roxb. or Ram Tulsi or Ban Tulsi, as it is known in Bengali and Hindi respectively, is a strongly scented perennial shrub belonging to the natural order of Labiatae. It is indigenous to Persia, Sind, Punjab, East Bengal, Nepal and Deccan Peninsula and has been found to grow wild and in profusion. The plant is said to be highly medicinal and aromatic with an odor resembling a mixture of lemon and rose with the lemon note predominating. Medicinally it is regarded in India as carminative and stimulant.

A sample of the greenish yellow oil, obtained in 0.1 per cent yield by steam distillation, has been examined by S. Nigam and S. Dutt and their findings published in the December, 1944 issue of the *Indian Soap Journal*. The oil was found to have the following physical and chemical properties:

Specific Gravity at 26° C.	**= 0.8890**
Refractive Index at 26° C.	**= 1.4965**
Optical Rotation	**= ±0**
Acid value	**= 12.2**
Saponification value	**= 37.5**
Saponification value after acetylation	**= 175.3**

Further examination of the oil showed that it contained the following constituents:

Citral	**66.6 per cent.**
Geraniol	**25.7 " "**
Citronellol	**2.8 " "**
Geranyl acetate	**1.5 " "**
Sesquiterpenes	**2.4 " "**
Residues (unidentified)	**6.6 " "**

Pinene from Juniper Oil as Insect Repellent

Because repellent pastes, ointments and emulsions which are applied to the skin are effective for only a short period and do not provide adequate deterrent action, Russian workers studied the possibilities of using suitably treated repellent nets. The nets devised by Pavlovsky proved to be extremely reliable in the protection of humans from attacks of mosquitoes and other blood-sucking insects. During the war, however, it became necessary to find new repellents which could be produced from local materials and used for impregnating. Tests made by D. Blagoveschensky, N. Bregotava and A. Monchadsky (*Trans. Rus. Soc. Trop. Med. & Hyg.* 39:147,1945, through *Quart. J. Pharm. & Pharmacol.* 18:411,1945) resulted in the selection of the *d*-alpha-pinene fraction of juniper oil, obtained from the young branches of *Juniperus seravschanica* Kom. Extensive tests have demonstrated that the pinene is a very effective repellent. It can be used either in its pure form or as a substitute for the turpentine employed in the original net-impregnating formulas developed by Pavlovsky; as in the following example:

Lysol	**15 parts**
Pinene	**8 "**
Water	**77 "**

Volatile Oil of Coulter Pine

In a report published in *Industrial and Engineering Chemistry* (38:405, 1946), N. T. Mirov states that the volatile oil obtained from Coulter pine oleoresin has a rather unusual composition. The volatile oil from this rare pine growing in California showed the following physical characteristics:

Specific gravity	**0.8505**
Index of refraction	**1.4767**
Specific rotation	**−15.21**

It was noted that the oil tended to polymerize much more readily than commercial turpentine.

Identification of the oil's components showed that it consists mostly of two terpenes: *l*-alpha-pinene and *l*-beta-phellandrene with an admixture of two aliphatic hydrocarbons, *n*-heptane and *n*-undecane. While alpha-pinene is the most common terpene of pines, the presence of phellandrene in pine oleoresin is not very common. Heptane has been found in the oleoresins of other pines, but Coulter pine is the only non-hybrid pine species so far known in whose oleoresin heptane is found as an admixture to the terpenes.

The presence of normal undecane in Coulter pine turpentine is considered to be of extraordinary interest. Originally this hydrocarbon was isolated from Pennsylvania petroleum. So far, *n*-undecane has been found in four pine species, including Coulter pine; *n*-heptane, in two species. Thus, the presence of paraffins in Coulter pine turpentine shows once more that turpentine as obtained from pine oleoresins is not always a mixture of terpenes alone. Probably an admixture of paraffin hydrocarbons to the terpenes is more common than earlier investigations had indicated.

Higher Yields of Camphene from Pinene

A new catalytic process said to yield higher proportions of camphene from pinene forms the basis of U. S. Patent 2,382,397, granted to W. F. Carson, Jr. He has found that the specific group of silicates known as the chlorites will effect the production of comparatively high yields of pure camphene in a relatively short period of time. In a typical example, a quantity of the mineral catalyst, prochlorite, was dried for one hour at 100° C. and then pulverized to a grain size of about 28 mesh. One part of this mineral catalyst was slowly added to 43 parts of alpha-pinene having a specific gravity of .8646 which was held at the reflux temperature until addition of the catalyst was complete. The mixture was refluxed gently for two hours, during which time the temperature of the reaction mixture had risen from 156° C.-165° C. The mixture was cooled, filtered to remove the catalyst, and the filtrate fractionated. A yield of 60% of solid camphene was obtained, the remainder of the material being chiefly monocyclic terpenes.

Carnation Perfumes

Carnation compounds, says F. V. Wells (*S.P.C.* 19:139, 1946) are admirably suited for use in toiletries for men. Carnation-perfumed talc is particularly popular. Specially compounded carnation complexes are used in toilet soaps, wave sets, cinema sprays, deodorant blocks, and other products. If carefully compounded, carnation-colognes offer considerable possibilities. However, this odor, unless considerably modified, is not suitable for employment in face creams and the like because of the skin-irritant character of the eugenols pressed in this perfume.

In discussing formulation, Wells remarks that carnation absolute is an article of commerce, but is not commonly employed. It has a waxy, attenuated but rather peppery odor, and is sometimes marketed in diluted form with benzyl isoeugenol as Fleur d'Œillet, Œillet liquide, etc. For most practical purposes, says Wells, it is best to start off with a good carnation compound as a

base, or with a blend of isoeugenol (20 to 50 per cent), eugenol (10 to 40 per cent); acetyl-isoeugenol (4 to 8 per cent), amyl salicylate (2 to 15 per cent), phenylethyl alcohol (10 to 20 per cent), rhodinol (5 to 15 per cent), otto of rose or rose de Mai (up to 2 per cent), and a trace of phenylacetaldehyde. Other useful basic constituents are clove oil, Amboyna clove oil, cinnamon leaf and huon pine oils; also methyl eugenol (more flowery but weaker than eugenol) and methyl isoeugenol, which mildly assists in a trefle shading. The "bouquetting" of carnation can easily be overdone, but to improve the floral character, carefully regulated proportions of jasmin, tuberose and orange-flower absolutes are to be considered; also ylang-ylang, paychouli and geranium oils. Other floral base modifiers are: linalol, terpineol, ionone and methyl ionone, nerolheptyl alcohol, hydroxycitronellal, benzyl and geranyl acetates, cinnamic alcohol and heliotropin.

To improve the quality of freshness, terpeneless petitgrain, coriander and bergamot oils can be extremely useful. To assist in rounding-off the main clove odor, the following essential oils may be considered: pimento, carrot seed, tarragon, nutmeg and mace, bay, cardamom, black pepper, massoia bark and cascarilla. Some of these, used in regulated quantities, also serve to add the typical carnation zest to the finished composition.

Two of the best fixatives are benzyl salicylate (5 to 15 per cent) and benzyl isoeugenol (5 to 20 per cent). Acetyl isoeugenol and isoeugenol phenylacetate are also useful fixatives. Civet, ambergris and musk ketone are sometimes used. Vanillin and ethyl vanillin are of definite interest, but excessive doses of these and of benzoin, labdanum, orris and musks should be carefully guarded against, in view of the general tendency of carnation perfumes to turn sour and musty on evaporation.

Patchouli Camphor

In a brief discussion on patchouli camphor appearing in the *Perfumery and Essential Oil Record* (36:317, 1945), C. E. Sage points out that the word camphor does not suggest that patchouli is derived from the camphor tree *Cinnamomum camphora* but only that the solid crystals which can be separated from patchouli oil resemble camphor in appearance. The *camphor* is an alcohol which crystallizes readily from genuine patchouli oils, in well defined hexagonal prisms, with a melting point 56° C., and boiling point 206° C., and for its odorous properties it is inferior to the oil distilled from the fresh plant. Besides the patchouli alcohol, the oil contains *coerulein*, the blue-colored compound found in wormwood and camomile oils, and the terpene cadinene.

Attempts to make an ester from the alcohol yielded results which were not of especial value from a perfumery standpoint, and were not pursued, for the genuine oil has fixative properties which are the chief value of patchouli.

Du Pont Booklet on Synthetics

An interesting but not too complex explanation of the role of synthetics in modern perfume formulation is given in a booklet published by the Fine Chemicals Division, Organic Chemicals Department, E. I. Du Pont de Nemours & Co., Inc., Wilmington, Delaware. Titled "Synthetics Bring New Era in Perfumes," the booklet includes a discussion of the use of synthetics in the making of perfumes, as illustrated by a popular French-type perfume. Also included is a review of synthetic perfumes in soaps and cosmetics and a consideration of perfume usage in industrial products and processes.

Constituents of Expressed West Indian Lime Oil

According to A. G. Caldwell and E. R. H. Jones (*J. Chem. Soc.*, 1945, p. 540, through *Quart. J. Pharm. & Pharmacol.* 18:400, 1945) in addition to limettin (5:7-dimethoxycoumarin)the solid which separates on standing from expressed West Indian Lime oil (from *Citrus aurantifolia*) has been shown to contain also the furocoumarin, *iso*pimpinellin. These two constituents have also been isolated from the oil together with 7-methoxy-5-geranoxycoumarin (2 to 2.5 per cent) and traces of bergaptol, previously obtained from bergamot oil.

Notes on Analysis of Natural Perfumes

Following a consideration of the importance of definite standards, Y. R. Naves (*S.P.C.* 19:38, 1946) remarks that perhaps in the past too high a value was set on the physical and chemical analysis of crude natural perfumes or fractions of natural perfumes soluble in alcohol, generally known as absolutes. In his opinion, the analysis of these products is only of general interest as a proof of the uniformity of their manufacture. Generally speaking, the only way of obtaining really useful information on the value and application of natural perfumes is to determine their essential oil content and the properties of this distillate.

The erratic methods of the first research workers, who treated the natural perfume or the absolutes derived by a stream of water vapor, have been replaced by distillation under standardized conditions in accordance with the technic developed by Walbaum and Rosenthal in 1929. Nevertheless, notes Naves, distillation at atmospheric pressure is lengthy and incomplete, and it is frequently slowed up or impaired by froth formation. That is why, since 1936, the has used superheated steam distillation at reduced pressure. However, it is well known in industry that the extraction of the essences contained in natural perfumes by steam distillation has a rival in extraction by co-distillation with glycerine, glycol, etc.

Co-distillation with glycerine or glycol has a number of drawbacks, which are the more marked if its efficiency is compared with the use of superheated steam rather than with that of saturated steam. They are due, on the one hand, to the fact that recourse is thus had to phenomena of simple distillation rather than to steam distillation, and on the other hand to the high solubility of a large number of essential products in glycerine or glycol. Quite often with co-distillation with glycerine or glycol, less essence is obtained than by the steam method, and often the composition of the distillates differs.

The isolation of certain essences from their distillates, especially glycol distillates, is difficult and has long been a source of serious errors. This is particularly the case with essences certain constituents of which are relatively soluble in water or glycol-water. The solution of this problem has been achieved by a very thorough study published in *Helvetica chimica Acta* (27:1103, 1944). Naves realized the need for saturating the distillate with sodium chloride and for using for extraction either ether or a mixture of pentane and ether, divided into five equal fractions.

Naves is of the opinion that today the method of distillation by superheated steam takes a form which is undeniably satisfactory, even for technicians of average ability, and it is likely to give most valuable service. It is possible that further methods of equal value will be obtained, after suitable and objective study, with glycerine or glycol. The way is now open for catching up on the great delay in the progress of analytical knowledge of natural perfumes.

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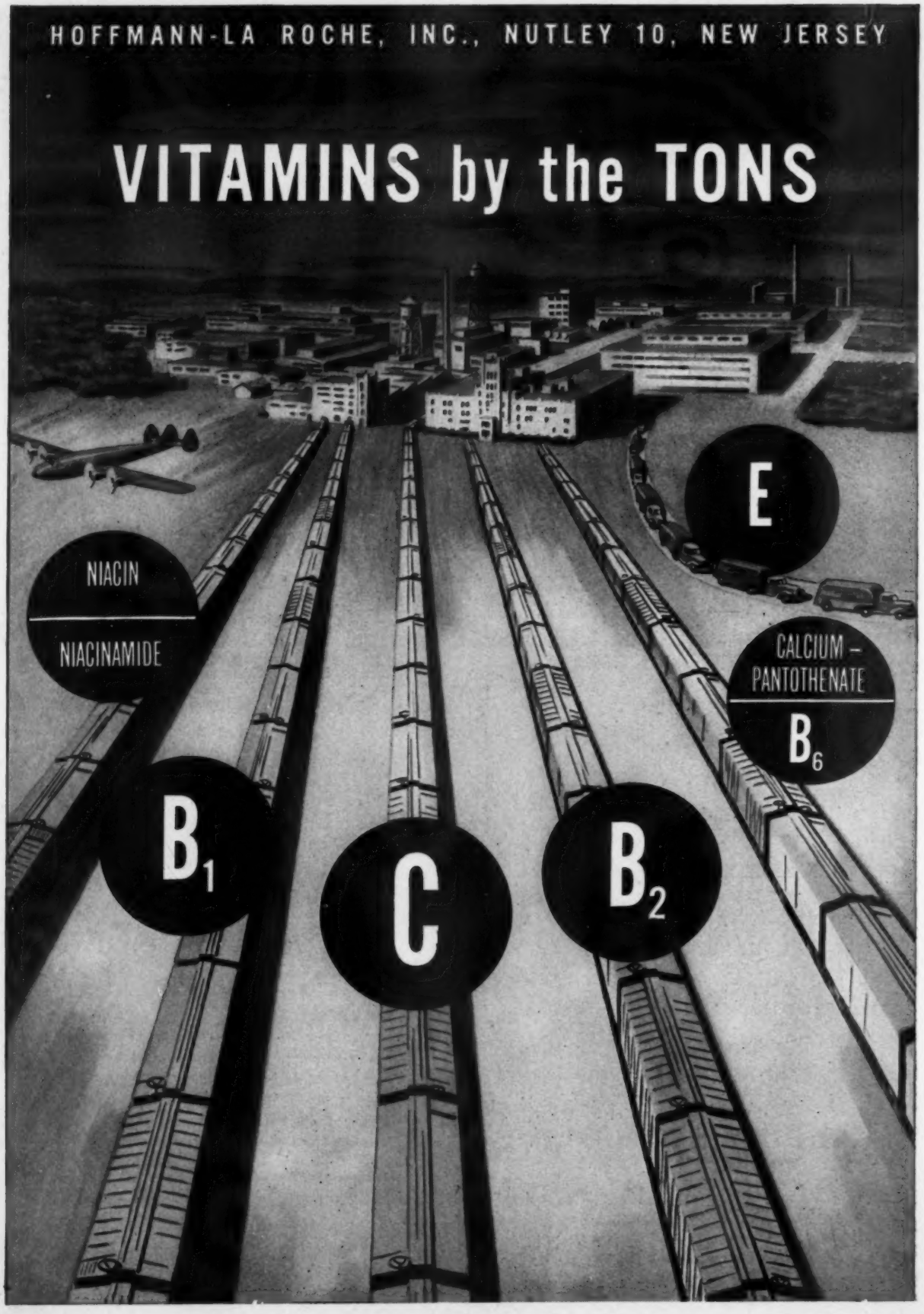
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Menthol Production Declines in Brazil...Spot Position Firm at Current Levels. Alcohol Uses Restricted.

Interest in the production of menthol in Brazil has declined as a result of the fall in prices, according to information received from that source. Estimates place the 1945-46 mint crop for obtaining menthol at only 25 to 30 per cent of the preceding season's crop in the Sao Paulo area. Production for 1945-46 will include the remaining part of the abandoned 1944-45 crop, which was not harvested because of low prices. This combined production is estimated at 300 tons of oil, but its average yield of menthol will be 30 to 40 per cent, compared with 60 per cent for the two preceding crops. (This is explained by the fact that the mint content in the old plants of the 1944-45 crops will be very small, thus bringing down the average.

Production in Sao Paulo in 1944-45 reached 1,200 to 1,500 tons of oil, or 800 to 900 tons of menthol, according to some sources. Officials in the Department of Agriculture report exports up to the middle of November 1945 at about 400 tons of crystals. Plantings in 1945 in northern Parana (the only other menthol-producing state in Brazel) were insignificant.

Stocks of menthol in Sao Paulo, as reported in February, amounted to about 400 tons. This quantity, added to the estimated production of 150 tons in 1945-46, indicates available exports in 1946 of about 550 tons of crystals.

Vanilla Bean Exports

Exports of vanilla beans from Tahiti (Society Islands, French Oceania) in the calendar year 1945 totaled 224,294 pounds, valued at $472,390, according to the Tahiti Customs authorities. Of that amount the United States obtained 156,864 pounds, valued at $327,776, or about two-thirds of the total exports.

During 1945 about 946 pounds of vanilla beans, valued at $2.059 were sent to France. This was the first shipment since 1940. The beans were sent by parcel post inasmuch as no vessel of the French merchant marine has called at Papeete since 1940.

It is expected that when normal commercial relations are restored the greater part of the vanilla beans exported from the colony will be sent to France, as was done before the war, unless there is found to be a higher market in the United States.

The trade in Tahiti estimates that the carry-over at the end of December 1945 was about 60 tons. It is understood that large contracts have been made for the shipment of vanilla beans to France.

MAY PRICE CHANGES

UP

Almond oil bitter 15c
Apricot kernel oil 4c
Arabic gum sorts ¼c
Arnica flowers 85c
Asafetida 15c
Balsam Tolu 25c
Candelilla wax 1c
Caraway oil 50c
Coriander oil 50c
Geranium oil African $1
Bourbon 50c
Guaiac gum 4c
Heliotropin 20c
Lemon Grass oil 20c
Menthol Nat. 45c
Peppermint oil Nat. 50c
Redist. 35c
Petit grain oil 50c
Pimento leaf oil 10c
Safrol 20c
Senega root 25c
Spruce oil 10c
Tragacanth No. 1 50c
No. 2 55c

DOWN

Anise oil 65c
Bergamot oil 85c
Cardamom oil $1
Cassia oil $3
Gentian root 6c
Grapefruit oil 5c
Mercury metal $2
Oleoresin ginger $1.35
Saffron Spanish $1.25
Sage oil Spanish 10c
Vetivert oil Java 50c

• Prices quoted in this section were current on the first of this month.

Alcohol Use Cut

Severe restrictions on the consumption of industrial alcohol, together with an allocation of products from which alcohol is produced, has been ordered by the Office of War Mobilization and Reconversion in a letter sent to the Civilian Production Administration and Department of Agriculture, it was learned.

Under the terms of the OWMR letter, consumption of ethyl alcohol during 1946 is to be limited to 150,000,000 gallons, including anti-freeze, Butyl alcohol consumption is to be held to 150,000,000 pounds, while the synthetic rubber industry is to get 20,000,000 gallons of ethyl alcohol.

On the supply side of the alcohol picture, blackstrap molasses from Cuba is to be divided as follows: ethyl alcohol production is to get 37,000,000 gallons of blackstrap, butyl alcohol is to get 18,000,000 gallons of blackstrap, export, principally to Great Britain, is to get 85,000,000 gallons of blackstrap, and the feed industry is to be allocated 10,000,000 gallons of blackstrap.

In addition, the feed industry is to obtain an additional 10,000,000 gallons of molasses from domestic stocks in the form of invert molasses.

The total of blackstrap molasses allocated between the foregoing uses is 150,000,000 gallons, which is the full amount expected to be made available by Cuba.

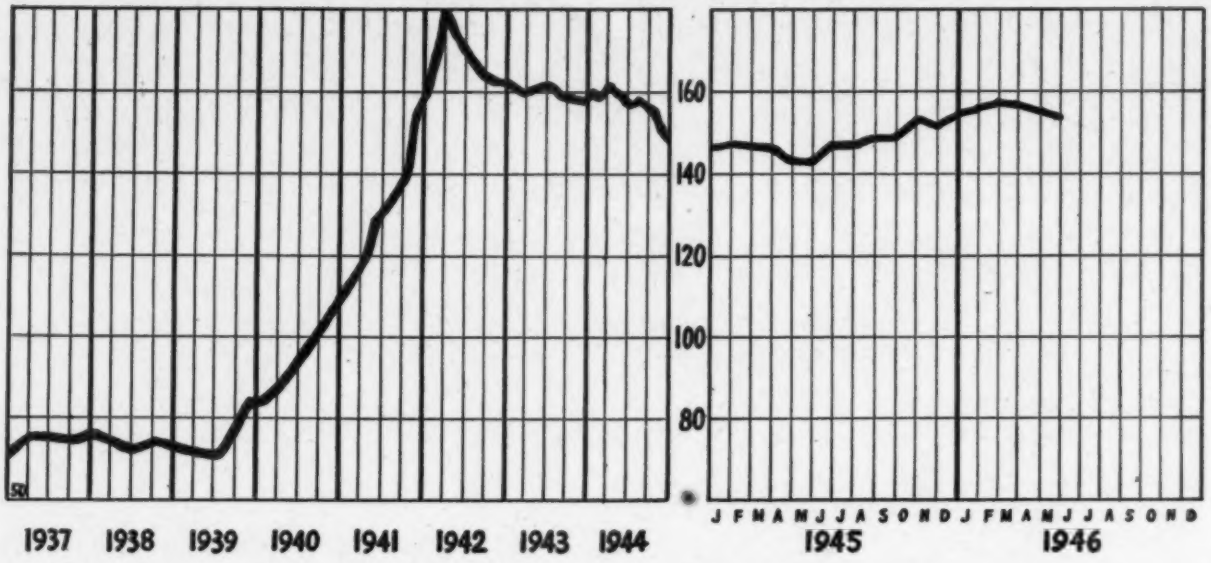
The consumption program is conditioned on the delivery by the Department of Agriculture of 11,700,000 bushels of corn to the production of butyl.

The gap between permitted consumption of 150,000,000 gallons of ethyl and the allocation of 37,000,000 gallons of blackstrap molasses to the industry is to be filled in part from the Government stockpile, which ran around 70,000,000 gallons at the beginning of the year, and from synthetic production of ethyl, principally from petroleum, of around 60,000,000 gallons annually.

In addition, between 20,000,000 and 30,000,000 gallons of Cuban alcohol will be imported into the United States.

(Continued on page 861)

50 Raw Materials—Weighted Price Index. 1926=100.



The price index of fifty commodities for May declined from 155.9 to 154.8.

Oil of Peppermint Shows Strength. Opinions Revised Regarding Production. Demand Proves Bullish

Of outstanding interest in the essential oil market is the strength in oil of peppermint. The current trading level for natural oil ranges from $6.75 to $7.00 at this writing with redistilled material being quoted at from $7.00 to $7.50 per pound. These prices compare with a range of from $6.25 to $7.00 for natural oil, and from $6.65 to $7.50 for redistilled oil in the previous trading period.

It was generally believed that, since crop prospects were good and a yield of approximately 1,250,000 pounds of oil anticipated, a favorable buyers market was in prospect. The current sugar shortage also provided grounds for this belief. However, this opinion has had to be revised and factors in the peppermint oil trade are now of the belief that present prices are well established and, if anything, are likely to go higher.

Because of the generally higher prices obtained on other crops, farmers believe they should obtain a greater return for their peppermint. Should the loan to Britain be granted it is also generally believed that there is likely to develop an unusually heavy export demand for the oil. Normally Great Britain uses well over 50 per cent of our total annual mint production.

It is also reported that the early crop estimates may be cut somewhat because of damaging frosts in some of the producing areas.

Production of Rose Oil and "Concrete," Bulgaria

Production of rose oil and rose "concrete" in Bulgaria was seriously curtailed by the war. Only 351,016 kilograms of rose oil were processed in 1945, compared with the high level of 3,778,957 kilograms in 1939. "Concrete" was not produced during 1944 and 1945.

Preliminary estimates of rose-garden acreage in 1945 place the total at 2,300 hectares, compared with the 1939 planting of 6,338 hectares.

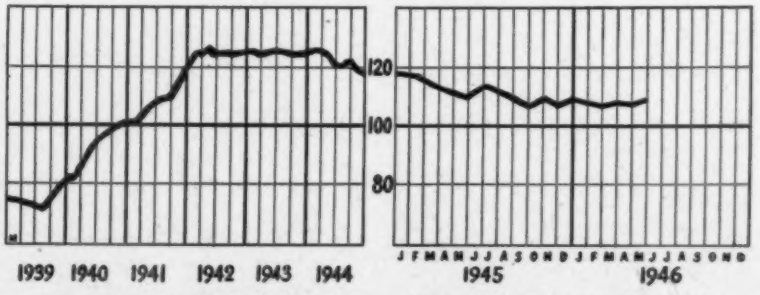
The accompanying table lists production of rose oil and "concrete" in Bulgaria in recent years:

(In kilograms)

Year	*Rose oil*	*Rose concrete*
1938.....	1,720,320	2,312,698
1939.....	3,778,957	86,445
1940.....	1,847,715	2,104,220
1941.....	835,767	1,205,050
1942.....	271,018	1,267,720
1943.....	1,133,316	2,015,619
1944.....	733,513	.....
1945.....	351,016	.....

Cultivation of roses for their essence in France, centered in Grasse, has been reduced until the current area planted is about 250 hectares, yielding an average of 3,000 kilograms per hectare. The crop of roses in 1945 dropped to 390,000 kilograms from 446,000 kilograms in the preceding season, when 900 kilograms of essence were also produced. The May Rose, a hybrid of the French Rose (*Rosa gallica*) and of the Hundred-Leaved Rose (*Rosa centifolia*) is the

15 Medicinal Chemicals—Weighted Price Index. 1926=100.



The medicinal chemicals index advanced from 130.0 to 133.2. Menthol and mineral oil were higher; mercury declined.

chief variety cultivated for the perfume industry.

Orange Oil Production, France

The 1945 yield of orange flowers as a source of oil in Grasse, France, approximated 900,000 kilograms. An estimated area of 500 hectares is currently planted to 450,000 orange trees, and the average yield per tree usually is from 5 to 7 kilograms of flowers. The flowers are steam-distilled or treated by the volatile-solvent process.

Essential Oils, Sicily

The 1945 Sicilian production of essential oils, principally lemon oil, was estimated unofficially at 200,000 kilograms. Producers were able to obtain supplies of first-grade fruit at reasonable prices, as there were few export outlets for the fresh fruit. The resumption of communications with northern Italy was of great assistance to this industry.

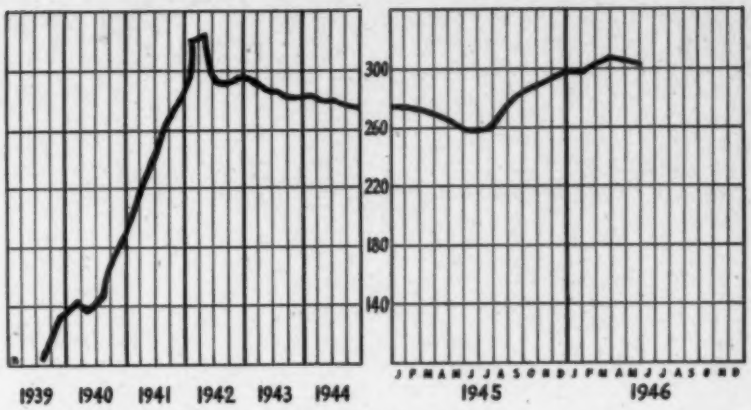
Paraguay's Export of Oils

Petitgrain oil was second in importance among Paraguayan exports to the United States for the first 2 months of 1946. During that time, 15,636 kilograms, valued at $73,891, were shipped. The 1945 shipments of 20,422 kilograms valued at $55,407 for the corresponding period indicate a drop of 23 per cent in quantity, but a 27 per cent increase in value.

Miscellaneous

Prices on oil bergamot continue to move in favor of buyers. Seed and spice oils are generally firm although cardamom continues to be offered on spot at the recently reduced level of from $19 to $21 per pound. Orange oil is featured by a generally firm tone. Offerings of geranium are generally limited. Bourbon oil is higher on spot. Petitgrain oil was higher here while cassia and anise were easier. Wormwood oil is quoted at as high as $9 a pound in the country. Florida grapefruit oil advanced to the basis of from $2.30 to $2.75 per pound. The market position for lemon oil was more favorable because of offerings of government surplus oil and the resumption of direct shipments from Italy. Spot prices for U.S.P. rosemary oil were higher at $1.50 to $1.75 per pound. The position of the eucalyptus market was improved by the arrival of material but more supplies are needed to take care of all inquiries.

15 Botanicals—Weighted Price Index. 1926=100.



The botanicals index declined from 297.4 to 296.0. Aloes was lower at 47 cents; Balsam Tolu rose to $2.50; gentian root was lower at 30 cents.

FINE CHEMICALS

(*Continued from page 859*)

Antibiotics Production Up

Penicillin output at the present time is averaging about 200 per cent more than the December 1945 rate, according to CPA. Penicillin estimated to be available in April is approximately 2 178 billion units as compared with production of 738 billion units in December 1945.

Actual production of the drug during February totaled 1,523 billion units.

In accordance with the large production increases and the fact that the heaviest seasonal demand for the drug for respiratory diseases has passed, CPA has increased allocations for export to a new high level to help satisfy the pressing world-wide penicillin need.

Production of streptomycin, a companion drug to penicillin, is still too low to meet even military needs but 32 per cent of the supply has been allocated in April for civilian use and for research, CPA reported, Streptomycin availability for April is estimated at about 29,900 grams as compared with about 27,260 grams in March.

Distribution of streptomycin in grams for April is as follows: Military 15,935, other Government agencies—4,500, and research and civilian—9,465.

Bismuth Tight

Principal manufacturers of bismuth preparations are reported limiting deliveries of subnitrate and subcarbonate to regular customers on the basis of previous withdrawals made and there appears little hope of any immediate relief in the tight supply position because of conditions existing in the metal. Work stoppages have brought about a 90 per cent drop in domestic bismuth production. The Government stockpile was recently frozen by the CPA.

Glycerin Scarce

The glycerin trade is running out of foreign sources of supply and it is believed there will be a decided drop in arrivals in the months ahead. The receipts noted during the early part of the year which ran into a reasonably good tonnage represented stocks which had been accumulated, it is explained, thus future arrivals coming from current production of this year's output are likely to be well under those noted in the first quarter of the year.

Cod Liver Oil Firm

Despite huge arrivals of cod liver oil prices continued very firm and strictly in line with controlled prices in foreign countries shipping to the United States. Arrivals in this market during the trading period under review totaled several thousand drums, shipments being received from both Iceland and Norway. The factor behind foreign market price strength is the large industrial requirements especially for making margarine for consumption where butter and its substitutes are scarce.

Cadmium Short

Work stoppages at production points threaten a loss of 45 per cent of domestic production of cadmium metal, according to the Civilian Production Administration, which agency, on May 3rd, froze the government stockpile at current

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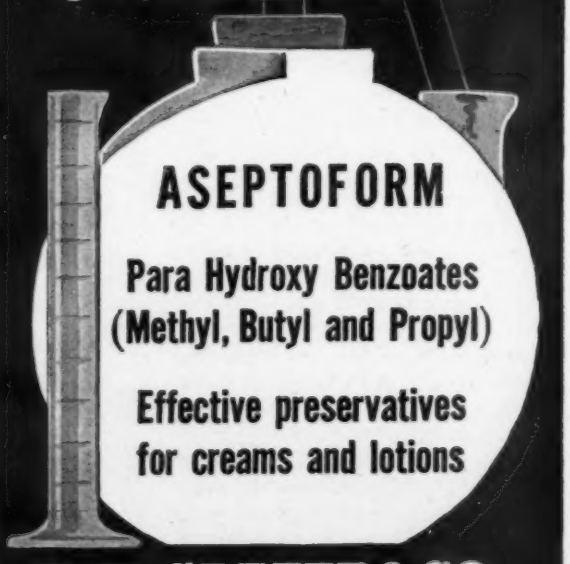

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levels. CPA also called on producers and distributors to adopt voluntary rationing measures to spread the available supply over the greatest number of immediate needs. Strikes in the smelting industries have reduced monthly production to 350,000 pounds from the recent production rate of 662,000 pounds per month. Government stockpiles on March 31st totaled 685,472 pounds and releases from this pile will be made for emergency needs only.

Miscellaneous

Silver salts remain scarce with quotations on nitrate nominal. Amonipyrine, antipyrine salicylates, caffein, theobromine and various other articles that are dependent upon an even supply of basic coal tar chemicals remain tight. Mercury showed a further decline to $101 per flask. Shortages of metal, glass and wooden containers are expected to continue for the balance of the year and into 1947. Many manufacturers of paper containers are optimistic about increased supplies of paper by fall, but admit that at present they are unable to operate at capacity because of inability to obtain raw materials. Manufacturers of glass containers stated demand has continued so high they do not expect to get caught up before another year and in collapsible aluminum containers a six to seven month backlog of orders was reported.

CRUDE DRUGS

Gums Tight

Prices for gum tragacanth have risen at the source and on spot. No. 1 ribbon gum now stands at $4.25 to $4.30 a pound and other gradings are almost proportionately higher. The undertone of the spot market was one of much strength.

A further addition to spot stocks was noted as gum karaya shipments arrived from Bombay, India. However, the market position was such that no weakness developed in prices prevailing either here or in India.

The spot arabic market continued very firm. Little price competition was possible because of what had been paid for gum recently arrived from the primary market. Demand was also a full support to prevailing quotations.

Turmoil in the Far East has prevented resumption of exports of gum benzoin from either Sumatra or Siam. This market has only synthetic gum available. However, regular dealers in the natural gum expect goods to start from the Far East in the not too distant future.

Stocks of camphor held by distributors were none too large, and a surprising amount of demand for USP quality material prevailed through the past week.

Gum aloe was still exceptionally firm in price. However, the situation was somewhat relieved by the arrival of some material from South Africa during the current trading period.

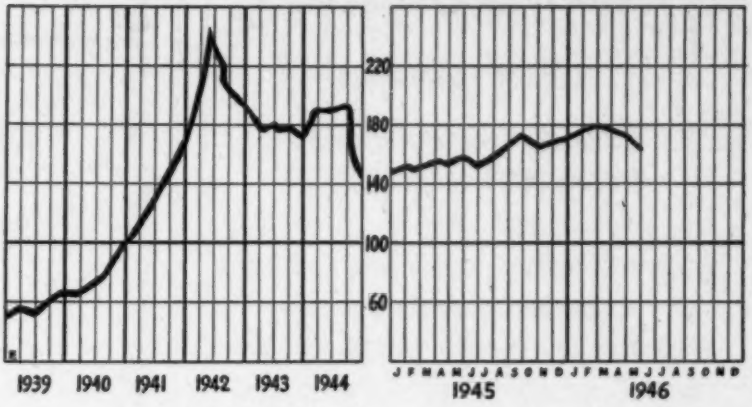
Rhubarb on Way

A lot of Chinese rhubarb is believed nearby. It is the first shipment consigned to the United States since the war. The prices quoted for this material are above those prevailing on Indian rhubarb but future replacements of the latter have been made highly uncertain by the limited amounts offered by shippers and reports to the effect that tighter restrictions have been imposed on exports out of the primary center.

Miscellaneous

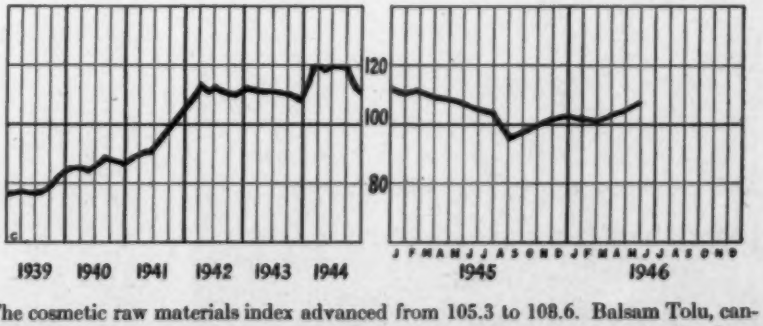
Virtually all vegetable waxes continue firm and active. Demand for colombo and gentian roots remains inactive and quotations are on the easy side. Spot price of goldenseal root is up. Actual turnover is restricted by short supplies. All the balsams are featured by a generally strong tone because of limited offerings. Spot supply of cascara bark is badly depleted. Slightly better prices are quoted on some grades of Irish moss. Recent detentions of arnica flowers from abroad have left the spot market virtually bare of goods. Hungarian chamomile flowers are again arriving in this market. Juniper berries from Italy also arrived here during the past month. Domestic collection of botanicals on the whole is still quite inadequate.

15 Essential Oils—Weighted Price Index. 1926 =100



The essential oils index declined from 160.4 to 151.9. Anise dropped to $2.35; bergamot was lower at $7; cassia declined sharply to $5.50; Geranium was up to $19.

25 Cosmetic Raw Materials—Unweighted Price Index. 1926=100.



The cosmetic raw materials index advanced from 105.3 to 108.6. Balsam Tolu, candelilla wax, menthol, mineral oil and gum tragacanth all moved to higher levels.

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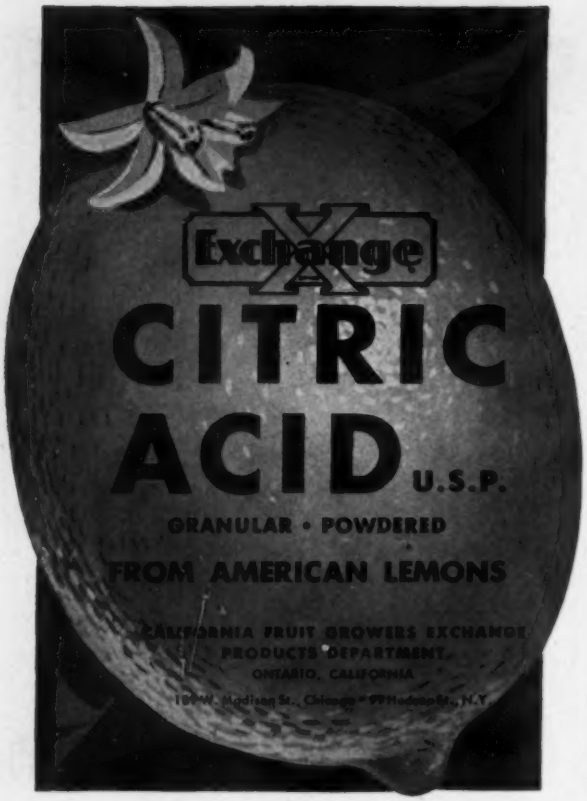

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READERS' QUESTIONS

ROLLING CREAM: We are anxious to get a formula for a good roll-away hand cream. The action of the cream is similar to that of the usual vanishing cream products but small rolls of the cream are formed when the hands are rubbed together. Nashville.

To my way of thinking a cream of this sort is little more than a modified emollient massage cream. A rolling effect can be achieved by taking a standard formula for such a cream and incorporating a small proportion of casein or rubber latex. Another method would be to use a mineral oil-containing formula and substitute part of the mineral oil with paraffin wax.

TEXTS ON DRUG DETAILING: In your article "Development and Marketing of Pharmaceutical Specialties" Part III as appeared in Drug and Cosmetic Industry March 1946; 58, 3 you say, "Much has been written on how to detail effectively." You go on to say that there are papers and texts on the subject. I should consider it a great favor if you could supply me with the names of the publications and texts dealing with detailing. I have personally found little in the literature pertaining to this subject. Richmond Hill.

Mr. Doyle, one of the co-authors of this series of articles, has given the following list of references regarding the information requested:

1. "Detailing the Physician" by Tom Jones, published by Romaine-Pierson, New York City.
2. Series of Articles on Training of Detail Men—"Medical Marketing," 1944-1945, published by "Medical Economics," Rutherford, New Jersey.
3. "Speech Fundamentals for Representatives of Ortho Pharmaceutical Corporation. Write to: Mr. B. J. Todd, Vice President, Ortho Products, Linden, New Jersey.
4. "Ethical Marketing," series of articles by Tom Jones on the selection, training and supervision of representatives, by Paul Klemtuer & Co. Inc., 24 Commerce St., Newark 2, N. J.
5. "Sales Training of Professional Service Representatives in the Pharmaceutical Industry," read June 1944 at convention of the American Pharmaceutical Manufacturers Association, Hot Springs, Virginia.
6. "Neglected Areas of Sales Training" by Thomas H. Nelson. Prepared for 1945 Eastern meeting of the American Pharmaceutical Manufacturers Association sales and advertising meeting, "Conference by Mail."

You may write to the American Pharmaceutical Manufacturers Association, 608 Fifth Avenue, New York City.

AFTER SHAVE LOTION AND NON-OILY HAIR DRESSING: Will you please send me the formula of an after shave lotion which gives a prompt, refreshing feeling on the skin? Also please give me a hair dressing made without any fat or grease. Boston.

A typical after shave lotion which should meet your requirements can be made as follows:

Boric acid	**2.30**
Menthol	**0.05**
Glycerine	**2.00**
Alcohol	**8.00**
Witch hazel	**87.15**
Perfume	**0.50**

A standard non-oily liquid brilliantine or hair dressing may consist of a mixture of water, alcohol and glycerine which serves to keep the hair in place without imparting excessive greasiness. A typical formula is as follows:

Glycerine	**40.0**
Alcohol	**40.0**
Water	**20.0**

This may be perfumed and colored as desired by the use of alcohol- or water-soluble agents.

COLOR FADING: Eight months ago we formulated a hand lotion using a sunscreen as an added protective measure to the skin. Due to the color of the sunscreen we felt it necessary to cover this color and market a shell pink lotion. After a thirty day shelf test and no fading was apparent the merchandise was placed on the market. The dye we are using is F.D. & C. Red No. 3.

At this time I find great quantities of merchandise fading back to the color of the sunscreen which is a sickening brown. It has been called to my attention that other lotions using shell pink are more staple and very seldom fade even when placed in the bright sun. That brings up the question of whether or not I am using the proper dye, or has the sunscreen properties of dissolving the dye now being used. Denver.

It may be that the color change is due to a delayed chemical reaction, but we are more inclined to believe that the color fading is due to the effect of light on the dye. In checking characteristics of F.D. & C. Red No. 3, we find that it has a light fastness rating of only 3, or fair. It seems to us that F.D. & C. Red No. 1 which has a light fastness rating of 6, or very good, would be more appropriate and probably stand up better in your product. It has a somewhat deeper color than F.D. & C. Red No. 3, hence less would probably be needed to provide a comparable tint. If at all possible we would suggest that you submit your product to a light fading test (Fade-O-Meter) in addition to your shelf tests.

DEPILATORY: We would appreciate very much if you would let us know a formula for making a depilatory cream with calcium thioglycolate. New York.

It is our impression that practically all depilatories containing this salt are controlled by patent, and we would suggest that you obtain copies of British Patent 484, 467, and United States Patent 1,973,130. However, manufacturers do supply to depilatory producers prepared materials containing calcium thioglycolate in a suitable base to yield a preparation of the requisite alkalinity.

CREAMS FOR DRY SKIN: I shall be very grateful to you for a good formula for a night tissue cream that can be used on dry, sensitive skin. Could you also give me a powder foundation cream, also for dry skins? Grand Rapids.

Creams for use on dry skins generally contain a higher proportion of fatty ingredients and in a sense might be termed "super-fatted" cosmetics. A tissue or lubricating cream containing a higher proportion of fatty ingredients can be made along the following lines:

White petrolatum	**35.0**
Beeswax, white	**10.0**
Spermaceti	**5.0**
Lanolin	**5.0**
Borax	**0.5**
White mineral oil (65-75)	**33.0**
Distilled water	**10.9**
Perfume	**0.5**
Methyl parahydroxybenzoate	**0.1**

Melt the fats and wax, add the oils and bring the temperature to about 145° F. Dissolve the borax in hot water and bring the temperature to 145° F. Strain the melted fats and oils into the mixing kettle, start the agitator and add the borax solution. Continue mixing until temperature drops to 115° F. and add the perfume. Dissolve the methyl parahydroxybenzoate in a little alcohol and mix into the batch.

Although not so commonly used, an oily cream may serve as a foundation base cream. If rubbed out on the skin in a sufficiently thin layer, the residual oiliness of the cream is just enough to assure proper adhesion of the powder and other make-up. A product of this type can be made along the following lines:

Beeswax	**8.0**
Petrolatum	**10.0**
Mineral oil	**30.0**
Pigment	**8.0**
Perfume	**0.5**
Borax	**0.6**
Water	**42.9**

Melt the oil, petrolatum and beeswax together, dissolve the borax in the water and heat to the same temperature as the melted wax, mix thoroughly and stir until cold. The perfume is added to the cream at a reduced temperature and the pigment is preferably ground into the finished cream.

HAIR MILK: I am in the early stages of attempting to put up a hair milk for use as a men's hairdressing. Can you help me? Birmingham.

Why not try something along the following lines, remembering to use a perfume which will have a masculine appeal:

Stearic acid	**6.0 parts**
Liquid petrolatum	**32.0 "**
Triethanolamine	**2.0 "**
Water, enough to make	**100.0 "**

Heat the stearic acid and liquid petrolatum to 60° C. Heat triethanolamine and water to same temperature. Mix and stir.

CREAMY NAIL POLISH REMOVER: Can you suggest a formula for a cream nail polish remover, naming specific ingredients, that can be mixed with ordinary equipment? The purpose of course, is a preparation that will not dry the nails. Chicago.

The following formula is quite typical and is readily prepared by standard procedures in standard equipment:

Glycol ethyl ether	**46.0**
Ethyl acetate	**15.0**
Paraffin	**5.5**
Beeswax	**6.5**
Stearic acid	**20.0**
Triethanolamine	**6.0**
Perfume	**1.0**

Any drying action which may be present can be overcome by the incorporation of a small proportion of castor oil or other suitable vegetable oil.

COAL TAR CREAM: We would like some information on synthetic coal tar as used in ointments or creams. Can you give us any reference to published literature on the subject? It seems to me that I saw mention of this in your magazine a year or so ago, but I have not been able to locate the item. Perhaps you can suggest a simple, vanishing cream base to incorporate this medication. Minneapolis.

I think you will find the detailed information you want in an article prepared by Ballinger in the "Journal of the Medical Society of New Jersey," Vol. 41, page 98, 1944. This article was abstracted on page 220 in the August 1944 issue of DRUG AND COSMETIC INDUSTRY.

A clean, useful vanishing type base for the application of tar has been given as follows:

Stearic acid	**12.5**
Glycerine	**6.5**
Distilled water	**75.0**
Potassium carbonate	**1.2**

SUNTAN PREPARATIONS: I am interested in information on suntan preparations. Can you give me a base formula for an oil and a cream? Miami Beach.

Considerable information on the formulation of suntan products has been published in DRUG AND COSMETIC INDUSTRY, and I would suggest that you refer to these articles for basic information on these products. A typical base formula for a suntan oil is as follows:

Mineral oil	**52.3**
Vegetable oil	**44.0**
Screen	**3.0**
Perfume	**0.5**
Color	**0.1**
Preservative	**0.1**

To make a cream you might use the following:

Stearic acid	**25.0**
Screen	**4.0**
Triethanolamine	**1.0**
Glycerine	**8.0**
Perfume	**0.5**
Water	**61.5**

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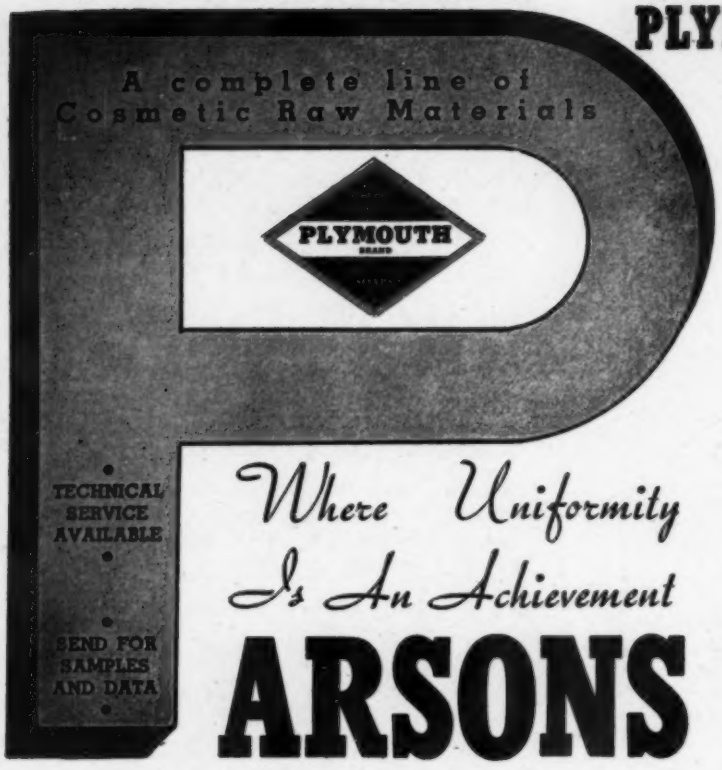

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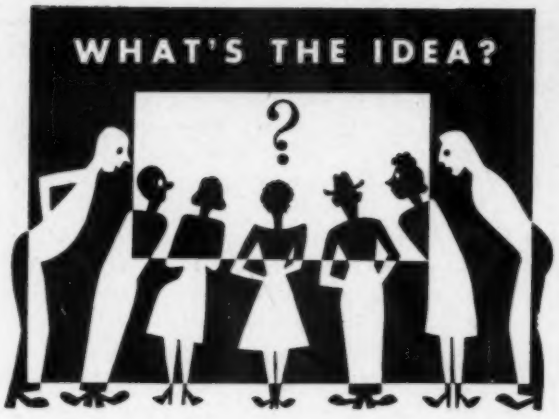

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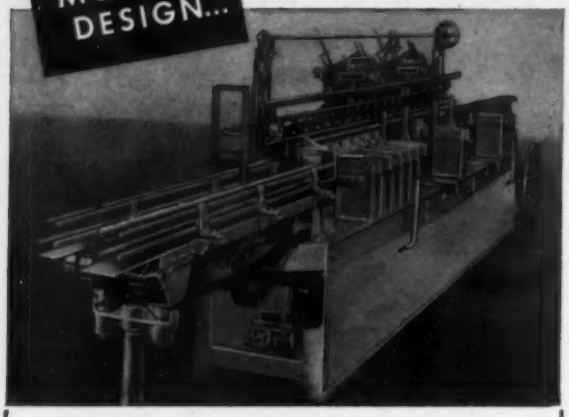

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Lanolin

(*Continued from page 787*)

dermal layers. While there has been a good deal of disagreement regarding these properties, newer work given evidence that lanolin does possess them to a marked degree. The experimental work of Eller and Wolff,[16] for example, showed that hydrous lanolin does penetrate the skin. Optimal effects were noted four hours after application. On the basis of their carefully controlled work, it was concluded that such materials permeate the skin and that penetration takes place in large measure along the hair shafts and into the oil glands of the skin. Pertinent in this connection is Goodman's[17] observation that wool fat and hydrous wool fat enjoy the reputation of being valuable as bases for endodermic ointments, which permit penetration of included medicaments into the depth of the skin.

It is well recognized that medicaments applied to the unbroken skin may be absorbed into the blood stream and that the rate of absorption may be influenced by the vehicle as well as by the drug it contains. About eight years ago Macht[18] tested a number of emollients and reported that, while none were especially effective in promoting drug absorption, of those studied lanolin was the most efficient. Other studies, however, indicate that lanolin is quite effective for promoting the percutaneous absorption of drugs. Lower[3] cites work in which a lanolin base containing only one-thousandth of one-per cent of mercuric chloride produced a metallic taste on the tongue within a few minutes after application to any part of the body.

Particularly significant are the studies made by Johnston and Lee.[19] Pointing to the many disagreeing reports on absorbability they devised a radioactive method for testing absorption from ointment bases. Sodium chloride, made radioactive by treatment in a cyclatron, was selected as the tracer substance, and its course after absorption was followed by means of a Geiger counter. Very indicative was the finding that of all the bases tested, anhydrous lanolin gave the best and most consistent results. While the quantities absorbed varied considerably with the subjects, in all cases there was a sharp rise in counts, followed by a gradual decrease in activity; the results being very consistent. Lard appeared to give the next best results, but there was not the consistency in readings as were obtained with the lanolin, nor were the counts as high—indicating poorer and less efficient absorption.

A point that rates more than passing mention is the erroneous belief that lanolin promotes hair growth. When lanolin first came into use as an ingredient for face creams, many women got the idea that it would cause hair to grow and that it was therefore inadvisable to use creams containing it. No one seems to know just how this opinion was formed or why it has gained such wide circulation. If this were true, very little lanolin would find its way into face creams, because most of it would be used to treat the bald spots on the heads of

millions of men. As noted in the *Journal of the American Medical Association*,[11] there is no proved tendency in lanolin toward the promotion of hair growth. Similarly, Lee-Charlton[14] remarks that all cosmetic experts are unanimous in their agreement that this material will not grow hair.

Lanolin can benefit the hair, but it acts indirectly through its effects on the scalp. In hair preparations, lanolin serves a very useful purpose by supplying a natural fatty material that helps to combat drying, scaling, dandruff and other local factors conducive to the loss of hair or to a dull appearance.

As already indicated, one of the most important properties of lanolin is its excellent emulsifying power. A self-emulsifying agent capable of stable emulsions with water, the value of the material is further emphasized by the fact that the water-in-oil emulsions made with it are extremely stable, show good compatibility with many drug and cosmetic materials, resist the action of mild acids and alkalies, and permit the incorporation of substances within a rather wide pH range.[2]

Lanolin is a valuable stabilizer for water-in-oil emulsions even when present in comparatively small proportions. Thus if 5 to 10 per cent of lanolin is added to non-emulsifying oils, such combinations become capable of absorbing large quantities of water to form water-in-oil emulsions. For example, 5 per cent lanolin in a mixture of 25 per cent mineral oil and 75 petrolatum will absorb 100 per cent of its weight of water.[2] According to Fantus,[12] a mixture of 1 part of anhydrous lanolin and 3 parts of petrolatum will absorb at least twice its weight of aqueous fluid with the formation of a stable emulsion.

Considerable practical information on the properties of such mixtures and the behavior of lanolin as an emulsifying agent have been provided by Kalish.[20] As a result of his quite detailed studies, the conclusion was reached that "There is apparently no reason why the proper combination of lanolin, water, and/or mineral oil, with other ingredients as desired, cannot give a completely satisfactory cosmetic mixture. The known value of lanolin in improving dry skins makes it absolutely indispensable in corrective cosmetics; its water absorbing power is or can be made adequate for any normal purpose; its stickiness can be reduced or eliminated."

It is well known that mixtures of lanolin with petrolatum or other paraffin products constituted the first "absorption bases," so called because of their ability to take up considerable quantities of water. In departing from the use of lanolin as such, most of the modern absorption bases make use of certain purified fractions of wool fat, such as cholesterol, oxycholesterol and their esters and other purified lanolin fractions. When combined with petrolatum and related compounds, these materials yield odorless, stable ointment bases that are compatible with most drugs and capable of emulsifying considerable quantities of water or aqueous medications.[21, 22] Quite a number of such bases

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are available commercially under various trade names.

One result of the search for newer absorption bases has been a more comprehensive knowledge of the compounds in lanolin responsible for its emulsifying action. In Europe, Janistyn[23] found that while cholesterol is the active principle of the wool alcohol mixtures, its action is enhanced by the presence of other fatty alcohols in the unsaponified portion of the wool fat. In a different approach to the problem, Powers, Leask and Warner[24] showed that a mixture of aliphatic alcohols from lanolin in petrolatum gave better emulsifying properties than a like proportion of cholesterol alone. They also found that the emulsifying efficiency of cholesterol is much less than that of mixtures of cholesterol and cholesterol esters.

Anyone at all familiar with modern formulation cannot help but know that lanolin is a really important raw material of cosmetic manufacture. One writer[3] has estimated that lanolin is a component of at least half of all types of cosmetics, either as a major ingredient or as a valuable and useful adjunct. A great deal of lanolin goes into the production of a large variety of skin creams such as "all purpose" creams, cleansing creams, night creams, lubricating, "tissue" creams, eye creams, bleaching creams, cream rouges and many others. As indicated by Malisoff,[25] lanolin is also a valuable inclusion in hormone creams. Hand creams made with lanolin are noted for their softening effects and for their efficiency in combating the adverse effects of weather, work, chemicals and skin fat-robbing solvents. Very recently, one rather widely consulted consumer publication[26] gave its highest recommendation to toilet lanolin as a hand cream. Such a product, it was suggested, could be made from a suitably perfumed combination of equal parts of hydrous wool fat and soft yellow petrolatum.

Liquid creams, represented by hand lotions, sun tan lotions and the like, are frequently benefited by the stabilizing and emollient action of lanolin. Its soothing and anti-drying action also makes lanolin a useful component of shaving creams, including both the lathering and brushless types. Lanolin is, of course, a most valuable superfatting agent for toilet soaps.[27]

With a history of utility in hair pomades, recent years have seen its more extensive use in newer types of hair dressings, particularly those designed for men. For those who may wish to experiment with such products, the following has been suggested as a working basis for making a lanolin-containing hair dressing:

Stearic acid	**10.0**
Mineral oil	**4.0**
Lanolin	**2.5**
Potassium hydroxide	**0.5**
Water, to make	**100.0**

Small proportions of lanolin are often added to permanent waving solutions to combat the tendency of the process to dry the hair and make it dull and brittle.[3, 10]

Jannaway,[28] in his recent review on lipsticks, considers lanolin as an almost indispensable constituent of

a good product. Not only does it serve to improve plasticity and bind together the castor oil, mineral oil and other constituents, but it also improves the adherence of the lipstick film to the lips, counteracts any tendency to dryness and irritation, enhances the indelibility and promotes retention of the color lakes and toners. Lanolin also helps the danger of cracking and sweating. Because of their variable composition, this authority does not favor the use of absorption bases as lanolin replacements in lipsticks.

It has been found that inclusion of a small proportion of lanolin in nail polish removers serves to overcome the tendency of the solvents to dry the nails and make them brittle.[2] Where the nails are excessively brittle, whether from the action of solvents or from other causes, lanolin-containing preparations have been recommended as useful for treating this condition.[29]

Somehwere intermediate between the fields of cosmetics and dermatology lie the new extensive group of industrial skin protective creams and ointments.[30] Lanolin was used in some of the first products developed for such purposes and it has maintained its place in many of the more specific skin protectives developed during recent years. For example, lanolin is a specified ingredient in four of the seven type formulas for protective ointments given by Schwartz[31] of the U. S. Public Health Service. It was also included in the industrial skin cleanser developed by this worker, as well as in the special cleaner prepared for use by soap-sensitive workers.

It is said[1] that the use of crude wool fat as a base for ointments can be traced back to the days of Pliny (23 to 79 A.D.), but that it was probably used by the ancient Persians and Chinese long before that time. Today the purified products stand among the most important materials used in making preparations for treating many dermatological conditions. Lanolin emulsions have a decided field of application in dermatology[17] and, as noted by Fantus,[12] wool fat is particularly valuable as an ointment for incorporating aqueous solutions of drugs and for making cooling salves. Simple Ointments, U.S.P., containing 5 per cent of lanolin, is still considered one of the most important vehicles for carrying medication to the skin. Valued as a component of ointment bases for carrying many standard drugs, the advent of new therapeutic agents has further enhanced the status of lanolin as a vehicle. For example, it was frequently found advantageous to incorporate sulfonamides into lanolin-containing bases, especially those of the water-in-oil emulsion types.[32] Indeed, lanolin-utilizing bases containing sulfas were recommended for treating more resistant skin infections.[33]

When penicillin entered the chemo-therapeutic picture, it was noted that lanolin-containing ointments often provided superior local effects, not only in skin diseases, but also in aphthalmic infections.[34] Simple anhydrous lanolin-mineral oil mixtures have been employed as vehicles for penicillin.[35] Recently, Myers[36] stated that the following ointment proved very suc-

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Wool fat	5.0 " "
White soft paraffin	70.0 " "
Freshly distilled water	20.0 " "

Of interest in connection with antibacterial preparations is the report that lanolin itself is decidedly bactericidal. In 1938, Nelis[37] observed that certain bacteria, when suspended in a mixture of equal parts of lanolin and mineral oil, were all killed in a few hours. In later work, similar results were obtained when lanolin was used alone, but liquid petrolatum by itself had little or no bactericidal action. Also pertinent is work which indicates that lanolin might be useful to detoxicate or attenuate various toxins, like those of diphtheria and tetanus.[38, 39] Indeed a patent[40] has been granted for a therapeutic lanolin sol for adsorbing toxins from the human blood stream.

On occasion, lanolin is used in special enteric coatings. It is reported[2] that pills coated with lanolin will dissociate in the intestine after six to seven hours. Sometimes lanolin is employed as a plasticizer in the preparation of adhesive plasters and tapes.

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Should Returned Goods Be A Problem?

(*Continued from page 775*)

create biological business. On occasion it is possible for the accounts stocking biologicals to suggest a specific manufacturer's products. Ordinarily the dollar success is directly related to the detail effort.

The Solution Is Field Control

An examination of the catalogs of several pharmaceutical companies reveals a much more hard-headed return goods policy than is actually practiced. For example: (a) Some companies state that returns can be made only after receiving permission from the branch or main office. (b) Others point out that no returns are permitted on merchandise sold under special offers. (c) Some place a time limit on the exchange privilege. (d) Several require that returned merchandise be sent prepaid back to the manufacturer. (e) Out-dated products can be exchanged only for items of equal value or in the same class. (f) Many accept damaged goods for salvage credit only.

In actual practice manufacturers recognize that competition and accepted business methods make it necessary to have a flexible return goods policy. The amount of returned goods a company has in a year is closely related to the calibre of its field management. Overstocking, weak detailing, poor planning, pressure to meet quotas and sloppy field supervision all play a part in building up a volume of returned goods.

Control in the field is the answer to whether or not a manufacturer does or does not have a returned goods problem. It is helpful to establish steps to keep returned goods in hand. The accounting department should set up a procedure for analyzing the flow of returned goods. Division and territory comparisons can be made to advantage. Individual performances can be studied in the reflection of the national average at say six month intervals. Divisions or territories exceeding the national average should be closely checked and a course of action taken to cut down the returns. It might be very worthwhile for a company with a troublesome returned goods problem to work out a salesman's "manifest" (record form). This makes it possible to keep a careful check on individual salesmen and their returned goods performances. Where necessary this method of control has a decided red light effect. In addition it provides an easy source for recording and reviewing data taken from the manifest. It is generally agreed that while there may be many paper regulations which can be set up to help reduce the rate of returned goods, the true and final answer is control in the field. Efficient field management usually means a low rate of returned goods.

Off-Season Sales Opportunities

(Continued from page 780)

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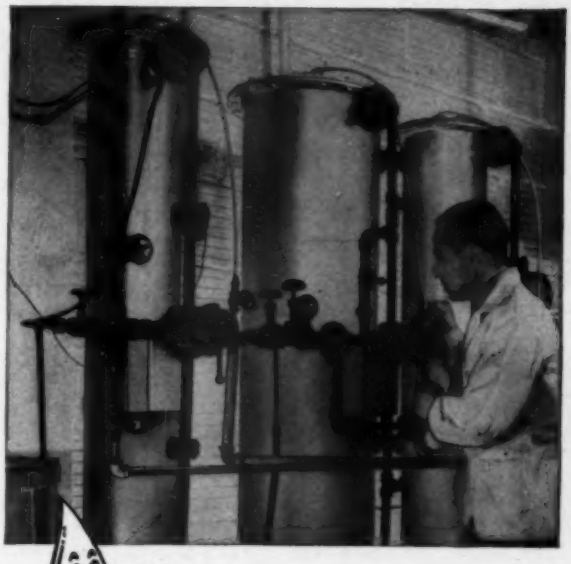

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manufacturers which have not "ripened" sufficiently yet to become a seasonal tendency.

Contributing factors are doubtless the currently frequent changes of the publication dates of the national magazines, the greatest use of radio and newspaper advertising, and their facilities for spot publicity. During the summer months the arrival of the man customer may play an important part. Of merely temporary influence, but pointing the way to useful opportunities for better market building may be the practice, forced upon stores by present conditions of placing their seasonal fashion goods upon the counters as they arrive; substantially earlier than normally. This distorts the seasonal structure of the year.

Whatever the cause, there seems to be no doubt that cosmetic sales are growing during parts of the year when they formerly did not. This is something the industry must act upon to make its current expansionary tendencies still more secure.

Because this is a matter that concerns the individual manufacturer and any steps to be taken must be determined by each manufacturer himself, no advice can be given as to the best method of dealing with this situation.

However, it appears that promotional "dating," especially the selection of the respective monthly issues of the national magazines for advertising purposes will need a re-study and that it may pay to bring copy into closer relation to the subseasonal needs of the consumer. Advertising should be spread more evenly over the year, giving greater attention to off-season periods and encouraging retailers to make additional efforts during weeks which, heretofore, have been neglected.

It certainly will be a good idea for almost any cosmetic manufacturer to discover which of his products have contributed to the sales increases in late winter and mid-summer and establish, if possible, the reasons why. Retailers' records seem to indicate that it is the utility rather than the luxury items that have been benefited by these newer sales trends. However, there is a possibility that the large size promotions of many stores during February and the tendency of duplicating articles for vacation purposes play a part in this development.

Only a close investigation of the facts will determine the cause and will enable manufacturers to make right use of their opportunities.

In the meantime, it will be very worthwhile to recheck this year's results. With July and August still ahead it will certainly pay to make some tests of the consumers' reaction.

According to the Department of Commerce, retail sales have been moving at the rate of an annual ninety billion dollars since the beginning of the year. This is 20 per cent above last year and non-durables, foods, apparel, drugs (cosmetics?) and department stores are making the principal contribution. Sales of cosmetics should have grown therefore at least 20 per cent this spring. Manufacturers will ask themselves, whether

their own business grew beyond this high expectation during the early part of spring and whether they can repeat this performance during July and August?

The chances for doing so appear extremely good. A last minute advertising and sales effort may turn out more profitable than expected.

T.G.A. Convention

(*Continued from page 783*)

Florence E. Wall, of Ralph L. Evans Associates, described how cosmetics should be clinically investigated and how they should be tested for intelligent promotion. Actual tests on living skin and hair were recommended as the most reliable tests.

Earle R. Caley, of Wallace Laboratories, presented two new methods of determining the specific gravity of cosmetic creams, the methods being applicable to creams of medium or stiff consistency.

In a paper entitled "Cosmetic Use-Tests," Erwin di Cyan defined as a use-test one "intended to denote a test, which has as its aim the duplication of conditions, by mechanical means, which a cosmetic product meets when put into actual use by the consumer." He warned against misapplication and misinterpretation of these use-tests, and suggested deliberation before application.

Dr. B. Thurber Guild, associate medical director for Winthrop Chemical Company, discussed the scientific aspects of skin cleansing, listing what he considered should be the properties, actions, and reactions of a superior skin detergent.

Proprietary Meeting

(*Continued from page 789*)

the point where it is possible to predict from a product's behavior in a test tube how it will perform against bacteria on objects or on living tissue. A phenol coefficient has been determined to be used as an absolute guide for the dilution of disinfectants chemically related to phenol. Dr. Reddish considers the FDA test for liquid antiseptics—which requires the killing of 300,000,000 staphylococcus within five minutes—"a severe test." While there is no official method of testing fungicides, several methods have been proposed, said Dr. Reddish. One method requires the killing of five of the most resistant fungi within five minutes in matted culture on agar plates. Another requires the killing of from 5 million to 12.5 million conidi of one of the most resistant pathogenic fungi within ten minutes.

Lawrence Flett, director, new products division, National Aniline Division, Allied Chemical & Dye Corp., spoke of the new detergents which can be used freely by "the very large portion of the population" allergic to soap. In particular, Mr. Flett spoke of his company's product of this type, called Nacconol, pointing out uses such as for bubble baths relief of diaper rash, chafing, control of perspiration and body odors, as an insecticide, and as an antiseptic and fungicide for control of athlete's foot.

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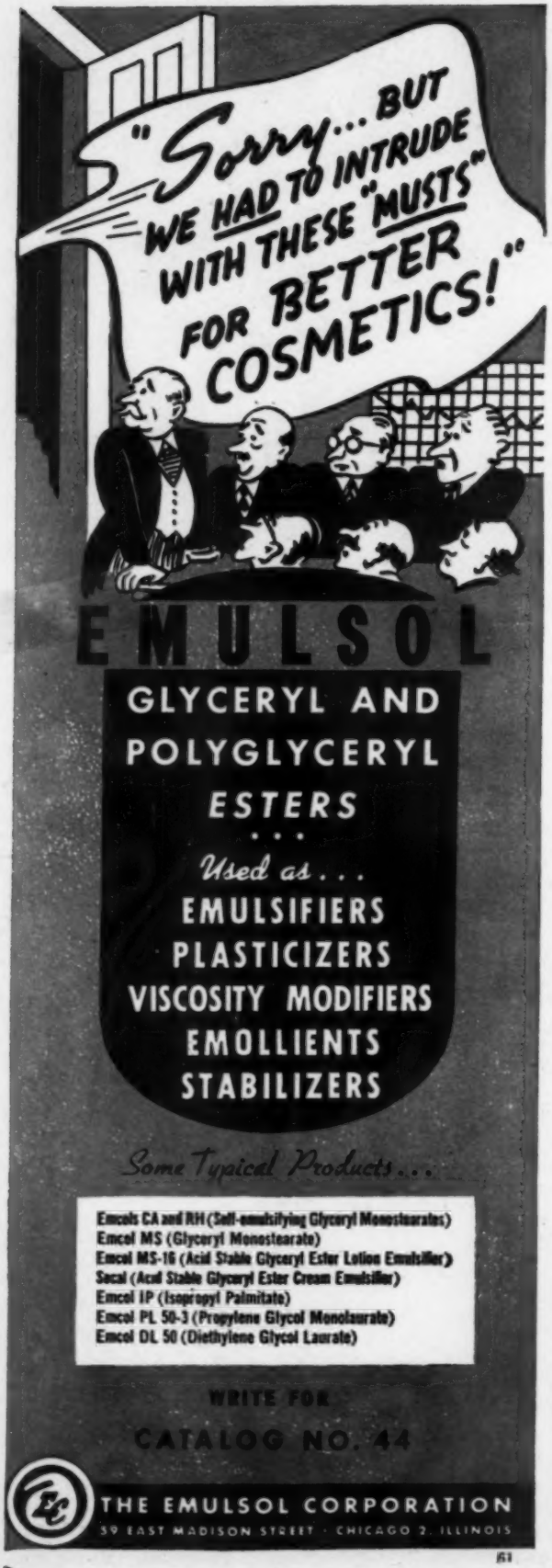
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Physio-Chemical Aspects of the Cold Wave Process

(Continued from page 785)

reported by a well-known women's publication are not borne out by actual experience over a period of years. The fallability of such patch tests was recently pointed out by Goodman[7], who showed that, regardless of the strength of the solution tested, the concentration of the material in contact with the subject's skin under the patch would soon reach 100 per cent upon the dissipation of the vehicle and that almost any chemical under these circumstances would show irritation.

It is apparent, therefore, that the same general rules apply to the manufacture of cold waving preparations as apply to other products used to treat or beautify the human body. The raw materials must be of the highest purity and uniformity and the finished preparation must be made under carefully controlled conditions. In this respect, the industry as a whole has taken great forward strides during the past few years and it may be safely said that the amount of time and money devoted to research and control is greater than ever before.

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ADMA Convention

(Continued from page 778)

Taylor reported that this project has reached a promising stage in the RCA laboratories.

Chairman E. A. Ravenscroft of the section on production and engineering (a new section), reported on discussions of plant maintenance, layout methods, air-conditioning, control problems, and job simplification. At a meeting of the section to be held in the Fall, production planning and scheduling and handling and warehousing of materials are to be discussed. Also a visit will be made to a plant, preferably one other than that of a drug manufacturer. Other subjects to be studied by this section are dust collection, ventilation, centralization, personnel problems, plant design, expansion, appraisal charges, cost-control unit processes, packaging, and other matters.

The subcommittee on replacements of the Scientific Section reported that imported drug supplies are improving, while many chemicals produced in this country are still difficult to obtain, sugar, glycerin, and alcohol presenting serious problems. Packaging supplies are far from satisfactory and the situation is generally considered to be worse than during the war.

Dr. Wallace E. Herrell, assistant professor of medicine, Mayo Foundation, and head of Section in Medicine, Mayo Clinic, spoke on the experimental and clinical evaluation of stryptomycin. From observation in 150 out of 200 cases of tuberculosis he concluded that the drug was of promise in suppressive effect in

this disease, but he is not ready to say that it provides a cure. It has definite therapeutic value in infections of the urinary tract caused by proteus and similar organisms. Effects in syphilis are not permanent. It is useful in blood poisoning and is a cure for tularemia. It has good effects in some cases of undalant fever in the acute early stages. Sometimes it gives good results in Friedlaader's infections. Its value in typhoid is still doubtful. It has shown promise in the plague. Studies on its use in whooping cough are still in the early stages. Pathologic organisms rapidly develop resistance to streptomycin, sometimes within the first 48 hours of treatment. This requires that development of the organisms be constantly checked. Streptomycin is much like penicillin in its toxic effects on the skin, but it is more toxic on the nerves in prolonged administration. It occupies a place in therapeutic value somewhere between that of tyrothrysin and that of penicillin.

Dr. Perrin H. Long, of the Johns Hopkins School of Medicine, spoke on the Medical Problems in the North African and Mediterranean Theatres of Operation, covering mainly typhus, malaria, dysentery, combat neuroses, and jaundice. The excellence of medical supplies, in both quantity and quality, of the U. S. Army contributed in a very large way to the lightness of the typhus problem and cut the mortality of malaria to a very low mark. Unfortunate physical consequences of toxicity resulted from the first method of giving atabrine in relatively large doses twice weekly instead of daily. Sulfa drugs, especially sulfadiazin, gave excellent results in bacillary dysentery. Some time passed before there was developed a satisfactory method for handling battle fatigue and its attending neuroses, but when appropriate psychiatric treatment was applied, the men returning to combat ran around 70 per cent. Jaundice caused much trouble, blocking one of the most important pushes in the Italian theatre. Chlorination of the water did not kill the causative bacteria, and only rest and a high-protein diet cured the attacks permanently.

New Products and How To Get Them

(Continued from page 783)

The *sales department* comes in contact with the distribution outlets, and in many companies with the consuming public, so it should be in a favorable position to gauge reaction at the point of application. Sales management should encourage the salesmen to send in new product ideas. Each suggestion, no matter how silly it seems, should be evaluated by a competent new products suggestion committee and a prompt reply made to the salesman explaining what happened to his idea. Prizes should be awarded to those salesmen who send in new product ideas that seem to have merit. If management shows that it is serious about new product ideas, the men in the field will be stimulated to send them in.

The *research department* is, of course, the logical place for new product development. Working in close con-

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tact with sales, market research and outside contacts, this department should be in the proper position to develop new ideas.

A carefully organized and equipped research department, supported by progressive management, should be able to function in a productive manner. A research administrator who has his finger on the pulse of new developments and knows how to apply them to his own company's needs, is an invaluable asset. Such a man can, with proper cooperation, lead his company to new and fertile markets.

As Doyle and Savina pointed out in a recent article (DRUG AND COSMETIC INDUSTRY, April 1946) "there is no short cut to new product success. An enlightened management working in unison with research, production, sales and advertising provides a team that is hard to beat." We echo these sound sentiments and add that unless the drug industry develops a careful long-range product development program the road ahead will lead to a dead end street.

John S. Zinsser

(Continued from page 781)

"To maintain and improve the Company's relative position in the industry, it is necessary to spend large sums on research and on greater selling effectiveness.

"Our progress, fairly steady except for the year 1938, was undoubtedly accelerated by the war. However, it can be said with relative certainty that the policies pursued were responsible, in the main, for this history. We feel safe, therefore, in our post-war planning to continue with our basic policies of the past."

It seems to be a generally accepted fact that the Zinsser administration has been just what the doctor ordered for Sharp & Dohme. Distinctive advertising, improved merchandising, and better sales control combined with sound management and original research have altogether added up to a sound profit picture. John Zinsser can well be proud of his stewardship as he took a somewhat anemic company and tripled the business within a ten year period.

NON-ALCOHOLIC MOUTH WASH: We have been considering the marketing of an antiseptic mouth wash, and after looking over some of the products on the market, we have been wondering how you can compete with some of these, considering the price of ethyl alcohol.

In view of these difficulties, I wonder if you could help me by providing a formula which does not call for the use of large quantities of alcohol or which perhaps would contain none of this ingredient at all? Leechburg.

A quite effective mouth wash can be made without the use of alcohol, as is illustrated in the following formula for a "Orange Mouth Wash," as given by Chilson:

Boric acid	**2.5**
Chlorthymol	**0.1**
Methyl salicylate	**0.6**
Glycerine	**10.0**
Distilled water	**86.8**
Dark orange color, as desired	

READERS' QUESTIONS

PERFUMING BATH SALTS: We are interested in learning the most efficient method of perfuming sodium sesquicarbonate for bath salts. We would appreciate any information you could give us. Litchfield.

A number of mechanical methods may be employed to perfume sesquicarbonate crystals. Essentially, most of these processes consist of dissolving the perfume in alcohol and spraying the solution on the crystals, which are then thoroughly mixed until the perfume is homogeneously distributed.

LANOLIN INFORMATION: We are very much interested in the use of lanolin in cosmetics. We would be most appreciative if you would send us generous references to the literature on the subject. Salt Lake City.

I think that you will find that the following offers a rather comprehensive bibliography on the uses of lanolin in cosmetics.

J. Kalish: "Drug & Cosmetic Industry" 43:168, Aug. 1938.

J. Augustine: "Soap, Perfumery & Cosmetics," Apr. 1935, pg. 28.

H. Lee-Charltin: "Soap, Perfumery & Cosmetics," Jan. 1938, pg. 61.

E. S. Lower: "Manuf. Chem. & Manuf. Perfumer" 15:13, Jan. 1944; and, 15:68, Feb. 1944.

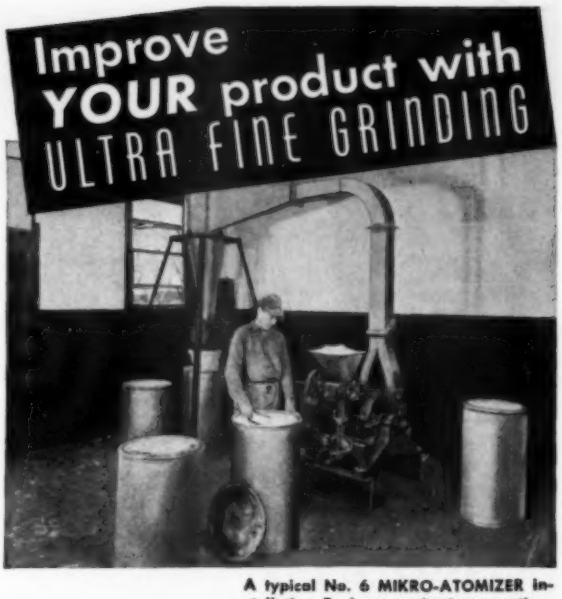
H. Wontner Smith and S. G. Campbell: "Manuf. Chem. & Manuf. Perfumer," 13:135, 1942.

EFFERVESCENT BATH TABLETS: Have you any available data bearing on the formulation of bath tablets for water-softening which effervesce upon immersion. We are somewhat stumped in finding an ingredient which would cause effervescence, but which does not neutralize the necessary alkalinity. Any help you can give us will be appreciated. Cleveland.

Effervescent bath tablets are usually composed of mixtures of tartaric acid, sodium bicarbonate and sodium sesquicarbonate; the reaction between the acid and part of the carbonate being responsible for the effervescent effect which hastens the disintegration of the tablet and more rapid solution of the softening ingredients. Following the initial effervescent reaction, sufficient alkali remains to be dissolved in the water to react with the substance normally present in hard water. Because of the extreme hygroscopicity of the ingredients which causes them to absorb moisture from the air and form hard sticky masses in the container, it is essential that the materials be thoroughly dried before use. Where possible, manufacture of the tablets should be done in a dehumidified atmosphere. A typical formula for an effervescent bath tablet is as follows:

Sodium sesquicarbonate	41.0
Sodium bicarbonate	31.0
Tartaric acid	12.0
Starch	11.0
Perfume	5.0

Dry all the ingredients thoroughly. Mix and add perfume. Compress and spray the color on the finished tablets.



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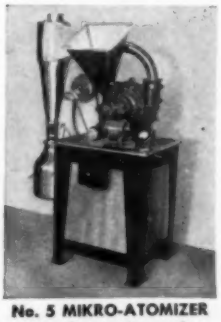

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HAIR LACQUERS: Can you supply formulas for hair lacquers? Philadelphia.

The simplest of hair lacquers consist of tincture of benzoin, styrax or rosin, sometimes with a little gum sandarac, diluted to the requisite consistency with a little alcohol. A typical formula of this sort may consist of:

Rosin	**1.0**
Gum benzoin	**2.0**
Alcohol	**97.0**
Perfume	**Sufficient**

If a spraying lacquer is desired the following is a typical formula:

Water soluble shellac resin	**20.0**
Water	**80.0**
Preservative	**Sufficient**
Perfume	"

If desired, a little alcohol may be added to speed up drying time but this is not really necessary.

LIQUID STYPTIC: In the August 1945 edition of DRUG AND COSMETIC INDUSTRY, *we note on page 267 a formula for styptic pencils. We were wondering if you had a formula for liquid styptic. We would appreciate it if you could send us such a formula. Ottawa.*

A 20 per cent solution of ferric chloride makes an efficient, widely used styptic. However, we assume that you have in mind a colorless preparation such as can be used on cuts made during shaving or the like. Probably the styptic water described in the Pharmaceutical Recipe Book is more in line with what you have in mind. This is made from:

Alum	**30 Gm.**
Zinc sulfate	**30 Gm.**
Rose water, to make	**1000 cc.**

Triturate the salts together and dissolve in the rose water, allow to stand for two days and filter.

HAIR STRAIGHTENER: We package a hair straightening petrolatum to sell to colored women for dressing the hair with a hot comb. We find that it does not produce enough sheen or gloss. Is there anything that we can combine with the petrolatum that will give a sheen. Hollywood.

Frankly, I am not at all familiar with this so-called hot comb method. However, a rather nice product for straightening the hair, which should produce the desired gloss, can be made as follows:

Yellow petrolatum	**6 parts**
Yellow beeswax	**1 part**
Peanut oil (refined)	**2 parts**
Perfume oil	**Sufficient**

Melt the petrolatum in double boiler and add the other ingredients. The perfume should not be added until the mixture begins to solidify around the edges. This is an amber product. If a water white product is desired use white petrolatum and white beeswax and substitute equal parts of deodorized castor oil and mineral oil for the peanut oil. By adding more wax and less of the oils product can be obtained that will straighten the most unruly hair.

FACE CREAM PROBLEM: I am very desirous of obtaining some information and would appreciate very much indeed any help you can give me. I have a very excellent formula for a skin cream, using as one of its main ingredients animal fat (suet). I want to substitute a fat not of animal origin, a vegetable fat or even a synthetic fat will serve my purpose. I have tried hydrogenated peanut oil but it does not seem to be satisfactory. Washington, D. C.

Why not try petrolatum. Its consistency can be controlled by adding mineral oil to the melted petrolatum. If a stiffer paste is desired a little paraffin wax may be added to the petrolatum. As an alternative, you might try a vegetable oil made more firm by the use of beeswax or paraffin wax.

DOG ECZEMA: A good many of my patrons who have dog kennels have asked me to make them a good lotion for dog eczema because their dogs scratch out all of their hair. Pittsburgh.

Before suggesting formulas for treating eczema of dogs, I should like to point out that the type of preparation to be used will vary according to the condition of the skin or type of eczema. For example, an ointment should not be used on an oozing skin surface, an evaporating lotion being much more suitable. A lotion of this sort may consist of 18% of tannic acid in glycerine diluted with equal or double its volume of water. Another useful lotion is:

Colloidal calamine	**20.0**
Glycerine	**5.0**
Para-chlor-metacresol	**0.1**
Water to make	**100.0**

If an ointment is desired, try the following:

Petrolatum	**100.0**
Paradichlorbenzol	**10.0**
Camphor	**10.0**
Kerosene	**10.0**
Sulfur	**20.0**

NICOTINE STAIN REMOVER: As a faithful reader of "Compounder's Corner," I would appreciate your giving me a formula for removing nicotine stains caused by cigarette smoking from fingers and nails. Santiago.

I think a product made along the following lines will serve your purpose:

Beeswax	**10.0**
Paraffin	**5.0**
Mineral Oil	**46.0**
Pumice	**8.0**
Borax	**0.5**
Water	**30.0**
Perfume	**0.5**

ALCOHOL PROBLEM: I intend to open a perfume department shortly. Please advise me what grades of alcohol are to be employed in the manufacture of perfumes and cologne waters. San Francisco.

There are special grades of alcohol used in the manufacture of such products and I am sure that if you will get in touch with your alcohol supplier he can give you full information on which grade of alcohol is most suitable for the several perfumes and colognes you intend to manufacture.

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FOR IMMEDIATE delivery: Pfaudler Jacketed Glass Lined Reactor 500 gal.; Devine No. 11 Vacuum Shelf Dryer 40" x 43"; Devine Surface Condenser and Receiver 50 Sq. Ft.; Devine Vacuum Pump 52 CFM with 3 HP AC Motor; Five Stokes and Colton Rotary and Single Punch Tablet Machines ¼" to 1"; Rotex Sifter 20" x 48" MD.; Devine No. 0 Vacuum Shelf Dryer—3 Shelves. What have you for sale? Machinery & Equipment Corporation (of New York) 533West Broadway, New York 12, N.Y., GRamercy 5-6680.

FOR SALE—30 Gallon Mixer with Motor, dump style, face powder, etc., Dey. 100 pound capacity powder mixer, Copper kettles, Barrel dough Mixer, Bale and bag stacker, Pasteuriser, Filling machines, Candy racks, Powder screwers, several style cans. One Homogeniser. Also a small soap and chemical manufacturing business inventory $2,500. Box J-3, DRUG & COSMETIC INDUSTRY.

FOR SALE—New Stainless Steel Tanks, 100, 150, 350, 600, 1000, 2000 & 3000 gals.; National Acme Model C20 Stainless Steel Centrifuge; 500 ft. Ball Bearing Roller Conveyor, 12" & 15" widths; Portable Electric Agitators ¼ to 2 H.P.; New Water Stills Gas & Electric; 50 gal. agitated Steel Tanks with Netteo Drives; 15 & 40 gal. Pony Mixers; Copper Jack. Kettles; Steel Mixers 2000 lbs. capacity; 20 to 150 gal. single & double arm, heavy duty horiz. Mixers; Paste, Powder & Liquid Mixers; Kettles & Tanks, Grinders, Crushers & Pulverisers, Sifters & Screens, Stills & Columns; Filters & Filter Presses; Dryers; Centrifuges; Pumps; Blowers. We buy your Surplus equipment. Stein Equipment Company, 426 Broome St., New York 13, N.Y.

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YOUNG MAN, with initiative, attending evening college, course in chemical engineering, now engaged in large scale cosmetic production. Thoroughly familiar with the formulation of cosmetics and also with raw materials. Desires position in similar line in capacity of assistant to production manager. Box J-1, DRUG & COSMETIC INDUSTRY.

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